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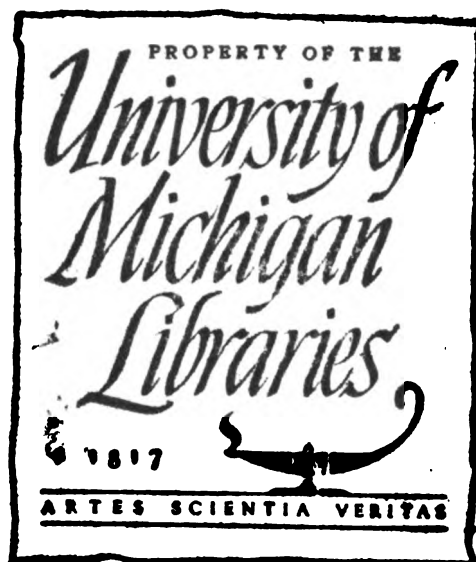
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Volume XXIV.

New York, U. S. A., Thursday, July 7, 1910.

No. 1

### HITTING BACK AT TIRE MAKERS

**Moto Bloc Wants Gilbert and Bennett Examined in Court—Scents a Price Combination and Conspiracy.**

All of the aggressiveness apparently is not to be confined to the tire companies in the recently instituted campaign against dealers who are conspicuous in selling tires at cut prices, as retaliation by dealers whose supplies have been cut off is now a phase of the situation.

In addition to A. H. Kasner's effort to interest the Federal Government in prosecuting the tire makers, as told in last week's *Motor World*, an attack has been begun by Leon D. Kauffman, president of the Moto Bloc Import Co., New York City, with a view to uncovering the combination which he declares exists among the tire companies and which has its manifestation in the Dealers' Protective Association, which latter the tire companies are fathering and which is supplying the tire makers with lists of dealers to whom they should not sell.

Without bringing any direct action for damages or for prosecution as yet, Kauffman has taken advantage of a little used part of the New York code, that permits one to ask for an examination of a party before trial to enable the intending complainant to draw his complaint in the proper form. On this line he has gone gunning for Joseph M. Gilbert, of the Continental Caoutchouc Co., and L. W. Bennett, who is in charge of the active work of the Dealers' Protective Association. His endeavor is to compel them to disclose the inside facts concerning the association, its records and minutes and those of the tire companies who are supporting it, including Diamond, Continental, Hartford, Morgan & Wright, G & J, Goodrich and Fisk.

Kauffman obtained an order for the examination, but Gilbert and Bennett obtained an order for a stay, and the matter

came before Judge Ford, of Part 1 of the New York Supreme Court yesterday (Wednesday), when both sides made their arguments. Judge Ford has reserved decision and has taken under consideration the question whether Gilbert and Bennett properly may be compelled to undergo the examination for which Kauffman asks.

### Selden Suits Warming Up in Detroit.

Another of the Detroit defendants in the Selden suits instituted in that city has filed an answer in the United States court, the document being that of the Warren Motor Car Co., which, like the Abbott Motor Car Co., alleges many unpleasant things of the Association of Licensed Automobile Manufacturers. The Selden patent is alleged to be "invalid and void" because of its having been "surreptitiously and unjustly obtained." Conspiracy is charged, and it is alleged that the complainants are attempting to suppress competition and maintain a monopoly. Henry C. Walters is named as solicitor for the defendant.

Attorneys representing the Columbia Motor Car company and George B. Selden on Tuesday filed a bill enumerating 17 exceptions, taken to charges and allegations in the answer of the Abbott Motor Car company. These exceptions, covering nearly all the chief points of the Abbott company's answer, are based on alleged impertinence of the subject matter of the answer.

### Carhartt in a Taxicab Project.

The Carhartt Automobile Corporation, of Detroit, Mich., is to enter the taximeter cab field, and Hamilton Carhartt, the general manager of the company, has become interested with Brewster & Co., of New York City, who are automobile importers and agents, in a new taximeter cab company which is to establish soon a service in New York City. The cabs are to be made by the Carhartt company, and they will be operated under a different system from that at present in vogue. There will be flat rates for certain districts. Property on Broadway near Sixty-sixth street has been acquired for a garage.

### MORE NON-SKID INJUNCTIONS

**Weed Complains Against Five Additional Alleged Infringers—Pursues the Advantage of its Recent Victory.**

Vigorously pushing the campaign of litigation for the establishment of its patent monopoly in non-skid chain devices, the Weed Chain Tire Grip Co., of New York City, has followed up its recent victory over the Excelsior Supply Co. and the Motor Appliances Co., by securing preliminary injunctions against five other concerns who are declared to be making or handling alleged infringing non-skids. The granting of the injunctions is based largely on the fact that in the Weed suit against Excelsior and Motor Appliances, the Parsons patent, No. 723,299, which is owned by the Weed company, was sustained by Judge Sanborn, on June 4, in the United States Circuit Court for the Northern District of Illinois, Eastern Division, Seventh Circuit. The patent was indicated by the court as being basic as applying to non-skid devices that are separate from the tire itself.

With the advantage and support of this decision, the company since has obtained preliminary injunctions, issued by Judge Sanborn, against the Garage Equipment Mfg. Co., of Milwaukee, Wis., makers of the Superior non-skid grip, in a suit pending against the Garage company in the United States Circuit Court at Milwaukee; against Leo Rabin, making the Reliable grip and also selling knock-down sets of grips under the name of the Auto Chain Repair Co., in an action in the United States Circuit Court at Chicago; and against the Pitts Anti-Skid Chain Co. and other makers of the Pitts grip, in the United States Circuit Court at Chicago. In New York preliminary injunctions have been granted by Judge Ward, of the United States Circuit Court, against William Wooster, selling the Victor grip, and against E. J. Edmond and others, selling the Zig-Zag grip.



### BUYS \$25,000 GARAGE TO GET \$5

**Latter Was Real Money, However, While the Larger Sum was a Bogus Check—Hammond's Daring Visitor.**

Experience has made the automobile dealers quite wise and "canny" in dealing with the general run of flim-flammers, confidence men, false pretence artists and others who seek to obtain either money or goods by means of some more or less ingenious "plant" or bluff, but once in a while a new game is worked, and is in a measure successful because of its lack of old-time identification marks. Among the most recent and daring is that which has been "pulled off" by a visitor in Hammond, Ind., who went to the extent of buying a whole garage with a bogus check for \$25,000, in order that he might borrow \$5 from one of the garage employees—the "borrowing" being permanent.

Giving his name as John Kolb, the visitor put up at the best hotel, talked of his vast possessions and money interests, entertained prominent citizens with a haughty disregard for cost, and ordered all items included in his account, as he could "not be bothered with petty money matters." His supply of pocket money for tips and small change becoming low, he went to one of the prominent garages and announced his decision to buy the business outright just as it stood. The garage proprietor, not averse to a cash deal at his own price, named \$25,000 as his figure, and with little or no objection or haggling the prosperous appearing stranger drew his check for this amount on the Independent Bank, of Philadelphia, and insisted on taking possession at once.

After being introduced as the new proprietor, he cocked his feet up on a desk and, puffing contemplatively on an unpaid-for cigar, looked the employees over as they went about their tasks. He finally hailed one of them, "touched" him for a five-spot on the ground that he happened to have left all his small change in his other trousers, and then sauntered out, to be seen no more. In due course his check for \$25,000 came back marked "no good," and the man who had sold the garage once more took possession, thankful that after having been deceived so successfully he was not a cent the loser, except in reimbursing the \$5 to his employee.

### One Hundred Members in M. A. M.

The Motor and Accessory Manufacturers this week in all likelihood will attain a membership roll of 100, as eight new members have been added, bringing the number to 92, and eight more are up for consideration at a meeting which occurs today (Thursday), with little indication that any of

them will be rejected. The eight new members who have been accepted by the association are: National-Acme Mfg. Co., Cleveland, O., multiple spindle automatic screw machines, slotters, etc.; Roessler & Hasslacher Chemical Co., New York City, platinum rivets for all kinds of contact points for automobile use; Wetherill Finished Castings Co., Philadelphia, Pa., finished castings, aluminum and bronzes; Star Rubber Co., Akron, O., tires; Chicago Drop Forge & Foundry Co., Chicago, Ill., drop forgings; J. Ellwood Lee Co., Conshohocken, Pa., tires; Muncie Wheel Co., Muncie, Ind., wheels; Kelley-Racine Rubber Co., Racine, Wis., tires. The association has sanctioned both weeks of the New York show and of the Chicago show, so that the accessory makers belonging to the association are at liberty to exhibit both weeks at either show. The Boston show in March also has been sanctioned.

### To Make Wagons Using Unusual Motors.

Indianapolis, Ind., has a new company, Commercial Car Co., which is to build light delivery cars equipped with an engine having a radical cylinder-scavenging feature. The concern has been organized under Indiana laws, and has obtained the old plant of the Columbia Conserve Co., at South Meridian street and Belt railroad, while temporary offices are maintained at 202 Board of Trade Building. The officers are Charles C. Wedding, president and treasurer; W. Henry Harris, vice-president; E. H. Lear, secretary; S. S. Scott, chief engineer; E. S. Moehrlein, assistant chief engineer; E. K. Yeisley, general superintendent.

### Mercer Raises Price on New Models.

In outlining its plans for the forthcoming manufacturing season, the Mercer Automobile Co., Trenton, N. J., announces that the price of its new models will be advanced from \$1,950 to \$2,150; the list price including full lamp equipment, tools and repair kit. The car will be produced in three body styles—namely, five passenger touring, four passenger small tonneau and three passenger speedster with a single rumble seat.

### Winnigham to Manage Hudson Advertising.

C. C. Winnigham, of Chicago, Ill., has been appointed advertising manager of the Hudson Motor Car Co., of Detroit, Mich. For the past three years he has been a chief of the copy department of Lord & Thomas. He will assume his new duties in Detroit on the 20th inst.

### Sibley Takes Possession of New Plant.

The Sibley Motor Car Co., of Detroit, Mich., is moving into a new plant which has been provided for it at Solvay and Mackie streets. The company has raised its capitalization from \$80,000 to \$150,000 to accommodate its greatly expanded operations.

### BOND HOUSES NOW IN OPEN ENMITY

**Attack the Automobile Industry for Lessening Bond Sales—Ingenious Excuses for Avoiding New Purchases.**

Enmity toward the automobile business is being found to have its chief source and animus among the big bond houses and the country bankers of the West, whose reasons for aiming to check the investment of money in motor cars, as pointed out in the Motor World, are more selfish than altruistic. Opposition to the automobile movement by the bond houses has previously been somewhat indirect and "gum-shoe" in its character, but an even more antagonistic spirit now is being shown, in that the bond houses openly are taking a stand against the motor car.

As a means of "slamming" the automobile business, the buyers for bond houses who ordinarily are expected to bid on offerings of municipal bonds but who at present are not taking anything except rare bargains, are explaining to some of the Western cities their refusals to bid on the ground that the cities have "too many automobiles in proportion to population" and suggesting that the heavy purchase of motor cars by citizens actually makes a municipality's credit unsafe and its bonds of doubtful value. The city fathers in each case, however, appear to be more peeved than impressed by such statements.

Making reference to the present lack of demand for bonds, the New York bond house of Spencer Trask & Co. declares in a bulletin as follows:

"Our people, never of a particularly economical disposition, have been carried away by the automobile craze, and thousands are running cars who cannot afford to do so without mortgaging property, while thousands of others are now investing in motors who formerly invested in bonds. It is calculated that upward of \$300,000,000 will be absorbed by the automobile industry this year, which represents the interest on about two-thirds of our entire prospective crops of the present year. This is a phase in our political economy which deserves more consideration than is usually given it."

### Change in Fiat's Boston Branch.

R. R. Ross, a veteran of the New England trade, has been appointed manager of the Boston branch of the Fiat company, having resigned from the Peerless branch in Boston to accept the new position. The Fiat branch is shortly to be moved from its present location at 885 Boylston street to a new building which is being erected for it at 839 Boylston street. Ross will appoint all sub-agencies in the New England territory.



**ALMOST TWO MILLIONS DURING MAY**

**Value of Exported American Cars Shows a Doubling in Three Months—Great Britain Buying Heavily.**

Export records are rising so fast that it is difficult to keep track of them. Hardly had the million-dollar-mark been passed in March, 1910, when April set a still higher figure, and now May shows a total of \$1,700,000 worth of automobiles exported to foreign countries. In three months the figures were doubled. The average value of the cars exported decreased from \$1,573 in May, 1909, to \$1,387 in May, 1910, while their total number amounted to 1,075, as compared with 519 in May of the preceding year, an increase of over 100 per cent.

British North America still occupies the premier position among foreign buyers of American cars, and accounted for \$664,406 worth, as against \$281,806 in May, 1909. Great Britain, the next heaviest purchaser, took \$487,266 worth, as compared with \$281,180 in the same month of last year, a gain of 73.3 per cent. The third largest buyer was the division included under Other Europe, which increased its purchases from \$36,037 to \$173,802. The greatest comparative gain, however, was shown by Other Asia and Oceania, which took \$49,400 worth. When compared with its purchases during May, 1909, which amounted to only \$666 worth, the figures for May of this year show the extraordinary increase of 7,317 per cent. The British East Indies also showed remarkable gains, the \$28 worth of parts sold to them in May, 1909, being increased to \$15,055 in May, 1910.

During the eleven months ending May, 1910, every one of the divisions bought more American cars than in the corresponding period of the preceding year. The total figures for the eleven months of the fiscal year was \$9,295,415, as against \$4,876,336 for the previous corresponding period, while the cars numbered 5,942 as against 2,607. The record in detail follows:

	—May—		—Eleven Months Ending May—		
	1909	1910	1908	1909	1910
Automobiles and parts of—					
Automobiles .....	281,180	\$1,491,497	\$4,008,724	\$4,340,165	\$7,910,370
Parts of .....	60,427	208,603	558,401	536,171	1,385,036
Exported to—					
United Kingdom .....	281,180	487,266	1,503,606	1,375,815	2,038,842
France .....	145,308	101,549	587,890	483,037	584,404
Germany .....	24,657	72,442	126,270	94,602	227,235
Italy .....	25,958	29,633	237,596	214,994	319,451
Other Europe .....	36,037	173,802	132,998	270,834	420,889
British North America .....	281,806	664,406	809,836	1,405,079	3,721,862
Mexico .....	32,009	45,262	379,126	369,372	501,219
West Indies and Bermuda .....	20,386	12,166	241,365	248,786	406,553
South America .....	14,913	21,439	213,733	135,348	296,559
British East Indies .....	28	15,055	28,558	23,401	51,225
British Australasia .....	10,132	12,243	153,750	111,255	319,555
Other Asia and Oceania .....	666	49,400	123,249	89,196	258,973
Africa .....	3,422	1,537	7,288	36,412	92,876
Other countries .....	375	13,900	21,851	18,205	55,772
<b>Total .....</b>	<b>\$876,877</b>	<b>\$1,700,100</b>	<b>\$4,567,125</b>	<b>\$4,876,336</b>	<b>\$9,295,415</b>

**Agents Recover Damages from Buick.**

Controversies between automobile dealers and the manufacturers, over agency arrangements and disputed commissions, are comparatively few and far between when the great extent of the trade is considered, but that a dealer sometimes may resort successfully to the courts in demanding commissions and damages where the agency for a line has been taken from him abruptly is shown by the results of a suit in the United States court at Fort Dodge, Ia., in which the Fort Dodge Automobile Co., a retailing concern of that city, was successful in obtaining an award of damages against the Buick Motor Co. The case is considered as having developed a number of fine technical law points, and because of the thoroughness with which it was fought by both sides, has occupied the court's attention not only for many days last term but for a whole week during the present term.

It was shown by the complainant, the Fort Dodge Automobile Co., that the Buick company had made a contract with it but subsequently took the agency away and conferred it on another dealer. Damages for the plaintiff were assessed in the amount of \$2,564. This amount is estimated as covering the commissions that the Fort Dodge company would have made if it had been permitted to sell the cars it had on hand and to pay for the advertising that it had done.

**Too Liberal to Automobile Concern.**

Opening its bank account with an overdraft, and following this with further drafts until it was necessary to give a note for \$10,000 to the bank, was the remarkable arrangement existing between the Pullman Auto Car Co., of Portland, Ore., a retail agency for automobiles, and the Oregon Trust & Savings Co., of Portland, according to the facts developed in a suit by the bank receiver against the directors. When the bank failed, the automobile company also failed, and the receiver is taxing the bank officials with serious negligence and fault in being so liberal in the granting of credit to the automobile concern.

**WOULD ORGANIZE ALL GARAGES**

**New York City's New Association has Ambitious Plans for National Movement—Evils of the Business.**

Enjoying a rapid growth and accretion of vigor during the two months that it has been in existence, the Garage Owners' Association, of New York City, which claims now to number 75 per cent. of the garages in the Metropolitan district in its membership, is reaching out to alliances with similar associations in other cities and is even contemplating the possibility of becoming a national organization. The association has effected a co-operative agreement with the Illinois Garage Owners' Association and has other connections in prospect.

In outlining the policies of the present and the plans for the future, the secretary, Charles D. Chase, explains the association's objects and purposes as follows:

"The principal object of the new organization is to ascertain the financial responsibility of all persons seeking storage, supplies, and repairs in garages, and to report promptly to its members the past history of each individual in connection with such and other transactions, if unduly slow of payments or unnecessarily fault finding as to items.

"In connection with the new organization is a bureau for collection of outstanding accounts, its representatives in their investigations for reports being in a position to make personal calls on delinquents of the various garages and obtain prompt remittances, or in case of necessity to sue on uncollectable accounts.

"In no other properly conducted business would credit of at least thirty days be allowed any customer without references and investigation, which if found unsatisfactory would result in either a refusal or curtailment of credit. Practically every garage in this city will accept at sight any automobile presented to them for storage or repairs, irrespective of the owner, and run an account averaging \$50 to \$100 per month, payable at the end of the month. It frequently happens that the automobile remains in the garage for one, perhaps two, months, when the owner decamps, leaving behind him an unpaid bill of from \$100 to \$200, which the garage owner must charge off.

"It is quite probable that a national association will be formed in the near future. This would be of great assistance to tourists and motorists making long runs, as they would be assured of proper charges for gasoline, oil, tires, and storage."

Representatives are to be sent throughout New York state during the next few months with a view to adding to the membership outside the metropolis.

## THE WEEK'S INCORPORATIONS.

Niles, Mich.—Wood Garage & Auto Co., under Michigan laws, with \$1,000 capital.

Detroit, Mich.—Bailey Auto Livery Co., under Michigan laws, with \$1,000 capital.

Weehawken, N. J.—Hamilton Auto Co., under New Jersey laws, with \$6,000 capital.

Detroit, Mich.—Bauer Steel Body Co., under Michigan laws, with \$20,000 capital.

Alpena, Mich.—Alpena Motor Car Co., under Michigan laws, with \$450,000 capital; to manufacture automobiles.

Hartford, Ct.—Hartford Garage Co., under Connecticut laws, with \$10,000 capital; to deal in automobiles.

Carthage, Mo.—Owners' Garage Co., under Missouri laws, with \$5,000 capital. Corporators—F. B. Clarke, W. S. Crane, J. E. Hall.

Dover, Del.—Northeastern Pennsylvania Motor Co., under Delaware laws, with \$100,000 capital; to sell and manufacture motor vehicles.

Smyrna, Del.—Smyrna Automobile Co., under Delaware laws, with \$2,500 capital. Corporators—J. E. Tucker, R. R. Tucker, H. D. Hudson.

Kingston, N. Y.—Ashokan Garage, under New York laws, with \$10,000 capital; to conduct garage. Corporators—M. Deyo, J. Johnson, J. E. Snead.

Troy, N. Y.—Bolton-Myers Automobile & Truck Co., under New York laws, with \$10,000 capital. Corporators—R. Bolton, G. T. Bolton, S. E. Myers.

Youngstown, Ohio—Standard Auto Sales Co., under Ohio laws, with \$10,000 capital. Corporators—R. H. Anderson, A. T. Smith, H. M. Anderson, W. D. Ewer.

Cincinnati, O.—Cincinnati Taxicab Co., under Ohio laws, with \$20,000 capital. Corporators—F. E. Burnett, A. L. Marshall, C. E. Everett, G. B. Johnson.

Anderson, Ind.—Forse Mfg. Co., under Indiana laws, with \$6,500 capital; to manufacture speed indicators. Corporators—W. H. Forse, R. M. Allen, W. S. Ellis.

Dover, Del.—Auto Central Co. (Capital Trust Co.), under Delaware laws, with \$25,000 capital. Corporators—J. G. McPherson, A. W. Southworth, D. P. Moore.

Detroit, Mich.—Globe Motor Co., under Michigan laws, with \$50,000 capital; to manufacture and deal in automobiles. Corporators—Robert S. Milhollin and others.

Akron, O.—Alton Motor Accessory Co., under Ohio laws, with \$50,000 capital; to manufacture and deal in automobile accessories. Corporators—Clyde S. Pelton and others.

Fort Plain, N. Y.—G. B. Gray Co., under New York laws, with \$5,000 capital; to conduct an automobile garage. Corporators—H. B. Gray, Harold G. Gray, J. C. Jackson.

New York City, N. Y.—Gotham Motor

Car Co., under New York laws, with \$25,000 capital. Corporators—William Schuette, Robert W. Schuette, both of Douglas Manor, L. I.

Detroit, Mich.—Hows Commercial Car Co., under Michigan laws, with \$60,000 capital. Corporators—A. J. Steiber, C. F. Howse, E. P. Newton, E. P. Miller, A. McClatchey.

Detroit, Mich.—Walker Motor Co., under Michigan laws, with \$150,000 capital; to manufacture motor cars. Corporators—G. S. Grantlung, John E. Armstrong, Thomas E. Morehead.

Chicago, Ill.—Factory Auto Supply Co., under Illinois laws, with \$10,000 capital; to deal in automobiles and accessories. Corporators—G. W. Stephens, W. A. Conover, Spencer Ward.

Little Rock, Ark.—Tedford Auto Co., under Arkansas laws, with \$50,000 capital; to deal in automobiles and conduct a garage. Corporators—W. L. Tedford, J. A. Comer, J. B. Pearson.

Milwaukee, Wis.—Badger Tire Repair Co., under Wisconsin laws, with \$5,000 capital; to operate garage and repair shop. Corporators—B. A. Massee, W. L. Baumbach, W. A. McMillan.

Wilmington, Del.—Pennsylvania Motor Car Co., under Delaware laws, with \$200,000 capital; to manufacture and deal in automobiles. Corporators—C. L. Hearn, V. Atkinson, J. M. Frere.

New York City, N. Y.—Daimler Import Co., under New York laws, with \$300,000 capital; to manufacture and deal in automobiles, etc. Corporators—A. N. Josbera, C. E. Braine, E. A. Packard.

Chicago, Ill.—United States Auto Bumper Co., under Illinois laws, with \$1,500 capital; to manufacture and deal in automobiles. Corporators—Allan M. McGregor, J. S. Matthews, W. J. Matthews.

New York City, N. Y.—Stearn Automobile Repair Co., under New York laws, with \$500; to manufacture, buy and deal in automobiles. Corporators—George Martensen, Wm. T. Nicolai, Francis Fitch.

Wilmington, Del.—Pittsburg Auto Owners' Association, under Delaware laws, with \$15,000 capital; co-operative and benevolent. Corporators—John Weiler, Wm. Crumlish, J. M. Frere.

Richmond, Va.—Jones Motor Car Co. Inc., under Virginia laws, with \$25,000 maximum, \$5,000 minimum capital; to operate a garage. Corporators—W. A. Jones, L. M. Jones, H. A. McCurdy.

New York City, N. Y.—Munsing Motor Co., under New York laws, with \$500,000 capital; to manufacture automobiles, motor boats, etc. Corporators—W. H. Bursmith, M. T. Westcott, F. W. Mitchell.

Chicago, Ill.—Monsen Auto Garage, under Illinois laws, with \$10,000 capital; to manufacture and deal in motors, vehicles,

and machinery. Corporators—Wm. Brown, Wm. Sherman Hay, A. Wright.

Gates, N. Y.—Hazard Motor Mfg. Co., under New York laws, with \$400,000 capital; to manufacture automobile gas engines and other machinery. Corporators—E. C. Hazard, G. E. Hazard, J. F. Alden.

New York City, N. Y.—North Side Coach & Auto Co., under New York laws, with \$150,000 capital; to maintain a livery stable, rent automobiles, etc. Corporators—J. J. Fox, W. J. Boyd, F. A. Orpp.

Indianapolis, Ind.—Midway Automobile Co., under Indiana laws, with \$3,000 capital; to deal in automobiles and accessories. Corporators—O. G. Thomas, C. D. Paidrick, F. L. Wiltshire, A. D. Thomas.

Chicago, Ill.—Inland Motor Parts Co., under Illinois laws, with \$2,500 capital; to manufacture and deal in motors, motor vehicles and accessories. Corporators—F. M. Lindgren, H. W. Carter, C. A. Garner.

Troy, N. Y.—American Motor Car Manufacturers' Exhibit Association, under New York laws, with \$10,000 capital; to give trade exhibitions. Corporators—George C. Lecomte, Frederick C. Claessens, Wm. A. Dunne.

New York City, N. Y.—Royal Sight Seeing Co., under New York laws, with \$5,000 capital; to manufacture and operate automobiles, carriages, passenger boats, etc. Corporators—D. Spielberg, H. Novidor, A. Katz.

Connersville, Ind.—Lexington Motor Car Co., under Indiana laws, with \$50,000 capital; to manufacture automobiles. Corporators—F. N. Coats, E. D. Johnson, A. E. Leiter, J. C. Moore, H. S. Johnson, V. K. Dodge, G. D. Wilson.

St. Louis, Mo.—American Welding & Automobile Repairing Co., under Missouri laws, with \$5,000 capital, one-half of which is paid in; to manufacture and deal in automobiles, etc. Corporators—August W. Mewes, H. George Donigan, F. Essen.

## Increases and Decreases of Capital.

Lansing, Mich.—Capital Auto Co. increases capital from \$10,000 to \$25,000.

Detroit, Mich.—Sibley Motor Car Co. increases capital from \$80,000 to \$150,000.

Galion, Ohio—Fetzer Automobile Co. decreases capital from \$125,000 to \$25,000.

Detroit, Mich.—Northway Motor & Mfg. Co. increases capital from \$250,000 to \$1,000,000.

## Jennings Likely to Go to Ecorse.

Ecorse, Mich., is listening to a proposition made by the Jennings Motor Car Co., a concern recently organized by Detroit men and which is seeking inducements from various of the smaller Michigan cities. The location of the plant in Ecorse is promised, provided the town's officials and citizens will make a number of concessions that are asked for.

## IN THE RETAIL WORLD.

The W. L. Hibbard Motor Car Co., of Milwaukee, Wis., has filed notice of dissolution.

Smith & Rayl is the style of a new firm in Abington, Ill. Richmond automobiles are to be featured.

P. H. Kelly is building a three story garage at 35th street and Midvale avenue, Philadelphia, Pa. It will cost about \$25,000.

Fire destroyed the garage on North Bolivar street, Marshall, Tex. The building was owned and occupied by E. M. Stanley.

The Eaton-Willis Automobile Co., Hutchinson, Kan., has opened a garage in the Odd Fellows' Temple. Studebaker cars are shown.

Harry Lang, of Alton, N. H., has entered the automobile business and opened a garage in the old power house. He will handle a full line of accessories.

The Price Talking Machine Co. has gone into the automobile business, and opened salesrooms in Halsey street, Newark, N. J. Berkshire cars will be featured.

The Shaffer Mfg. Co., Baltimore, Md., is erecting a two story brick garage and repair shop at 408-410 North Calvert street. The building will be 110x31 feet.

The Vandagriff Auto Car Co., Louisville, Ky., has certified to a change of name to Vandagriff Motor Car Co. The company conducts a garage and rental service.

The Hess-Menzie Auto Co., Portland, Ore., has changed its name to Menzie-Dubois Auto Co. The necessary certificate has been filed with the state authorities.

E. Bacon, director of the Logan (Utah) Automobile Club, is supervising the erection of a new garage for club members and passing tourists. The new structure is 60x75 feet.

Fred Stewart, proprietor of the Ford Livery Co., McAllen, Tex., has installed an automobile repair department in connection with his stable, and will do general repair work.

Ground has been broken for the garage of the Seattle Taxicab Co., Ninth avenue, between Pike and Pine streets, Seattle, Wash. The structure is to be of brick and will cost \$25,000.

Work has commenced on the new garage of George R. Dana, at the corner of East Merrimack and Stackpole streets, Lowell, Mass. It is a brick structure, 107x72 feet, and will cost \$7,000.

Fred T. Kitt has added four stories of reinforced concrete to the rear of his garage on M street, Sacramento, Cal. The new structure will house Columbus, Baker and Waverly electrics.

Seven months after the old garage had been destroyed by fire the new Currier garage, in Ipswich, Mass., has been opened to the motoring public. The new structure is of brick and practically fireproof.

Frank Starbuck, once famous as a bicycle racer, has entered the automobile business and become the owner of the Starbuck arage at 5223-25 Market street, Philadelphia, Pa. He will display DeTamble cars.

Greenville, Tex., is to have a new garage "in its midst." C. B. Jones, W. B. Wise, H. W. Williams and W. B. Hindman will be the owners of the building, which is to be 54x100 feet, of reinforced concrete and brick.

H. L. Keats, of the Keats Automobile Co., Portland, Ore., is now in the East arranging his accounts for next season; he will remain here several weeks. He is accompanied by Manager Wallace of his Seattle branch.

Under the style the Normandin-Campen Carriage Co., a new firm has been formed at San Jose, Cal. The concern will handle the Hudson, Chalmers-Detroit, Lozier, Thomas and Wilcox gasoline cars and the Babcock electrics.

Sims & Kincaid have opened a motor car livery in the Arnold Automobile Co.'s garage on South Lawrence avenue, Wichita, Kan. Six automobiles form the nucleus, around which the young men expect to build up a big business.

Plans just have been filed for a concrete block garage to be erected at East Seventh street and Hawthorne avenue, Portland, Ore. H. N. Mathelsen is the owner of the proposed garage, which will be 100x50 feet and will cost \$25,000.

Pleasantville, N. J., is to have another garage on Washington avenue, west of the shore road. Louis Gentmeyer is constructing it. The building will be two stories high, of brick, with concrete floors, and is to cost \$6,280.

The Woolston Co., of East Orange, N. J., has moved into its new garage at the corner of Grove street and Central avenue. County Clerk John Woolston, who is the manager of the company, has been the agent for Oakland cars.

A certificate of purchase of the stock of the Connecticut Motor Car Co., Bridgeport, Conn., by the Motor Car Co. of Connecticut, Bridgeport, Conn., has been filed with the Secretary of State. The action is part of a reorganization plan.

The Curtis Automobile Co. has taken possession of its new home at 142-144 Eighth street, Milwaukee, Wis., having moved there from 180 Fifth street. The new building is 50x150 feet, two stories high and built of brick and concrete.

F. W. Hawley, who conducted an automobile garage at St. Cloud, Minn., has sold the business to Archie Hogan and Peter Minette. The new owners will take possession at once and conduct the establishment under the style the Hogan-Minette Auto Co.

The Carpenter Automobile Co. is the style of a new concern which has taken

over the business of the L. P. Dorsett Co., with salesrooms at Seventeenth and U streets northwest, Washington, D. C.; Croxton-Keeton cars will be featured by the new company.

A fire said to have been caused by spontaneous combustion started in the paint shop on the upper floor of the Joseph Pierotti & Co. wagon shop building at the corner of Third and Webster streets, Oakland, Cal., destroying the entire upper floors. The garage on the ground floor was badly damaged.

The Auto Co., of Houston, Texas, was dissolved on June 23, and a new charter taken out immediately after the dissolution. The action was taken in order to eliminate several of the old directors of the company. The incorporators are: Harvey T. D. Wilson, Harry Holmes and Thomas O'Neal. The capital of the company is \$10,000.

The Hackett Motor Car Co., of Paterson, N. J., doing an automobile express business between that place and New York City, has gone into the hands of a receiver, Judge Cross, of the United States Circuit Court, having appointed Harris J. Westenhoff to take charge. The liabilities are estimated at \$70,000 and the assets at \$18,000.

Henceforth the Hartford Garage Co. will conduct the Miner Garage in Hartford, Conn., the selling of cars being continued by the Miner Garage as heretofore. The new company is incorporated with a capital stock of \$10,000, with E. Y. Judd as president and F. C. Coon as secretary, and will maintain the accessory and garage department of the business.

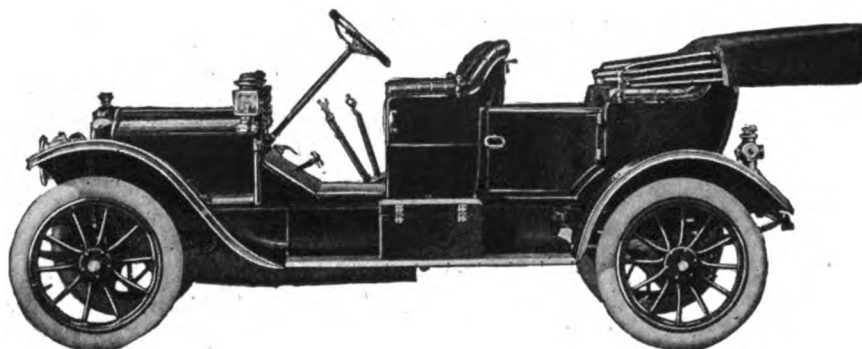
Fred S. Cornell, automobile dealer at 1158 South Main street, Los Angeles, Cal., has filed a voluntary petition in bankruptcy. His employe, Carl Fisher, ran down and killed an aged woman a short time ago, and the heavy cost of the accident to Cornell as well as the notoriety attached to the case is alleged to have crippled the business. Liabilities are \$3,649, and assets \$2,525.

According to plans just made public, New York City is to have still another big building devoted exclusively to the automobile business. The new structure, which will be called George Ehret Automobile Industry Building, is to be of reinforced concrete. It will cover the valuable plot at the corner of Broadway, Columbus Circle, 58th and 59th streets, and will cost at least \$120,000.

Disagreement and quarrels between James J. O'Toole, Benjamin Anderson and William B. Murray, operating under the style the Southern Automobile Sales Co., Washington, D. C., led to proceedings in equity instituted by O'Toole against his partners. O'Toole charges that he was refused access to the books of the firm, and that he therefore is ignorant of the condition of its assets.

# WHITE GASOLINE CARS

## for 1911



**SIZE AND POWER**—moderate, therefore, most economical to maintain.

**PRICE**—moderate, therefore, easy to buy.

**DESIGN**—includes many advanced features not found in any other American car.

**QUALITY**—The only moderate sized car wherein every part is just as well built as in the highest-price, high-powered cars.

**DELIVERY**—Very few open dates. First come, first served.

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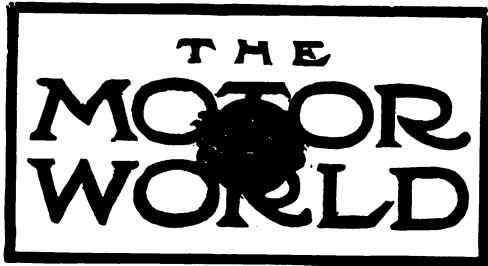
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#### Illuminating the Number Tag.

It is greatly to be hoped that the announcement of new and forthcoming models will reveal a disposition on the part of the manufacturers to consider the real need of the motorist in the construction and arrangement of the tail light. Although it is a requirement of practically all state automobile laws that the license number tag shall be placed so that a white light from the tail lamp shall shine upon it, few car makers, if any, have made direct provision to that end up to this time. Save for providing as standard equipment a tail lamp of the kind specified by the law, they have left it pretty much to the individual owner to solve the problem of placing the tag in such a position that it will get the full benefit of the white rays of light. That the police have not taken the opportunity of making arrests for non-conformity in this respect, is one of the unexplained circumstances surrounding the life of the

automobile owner and the professional chauffeur.

With the outcroppings of new models, however, it appears that this question has been given a certain amount of thought already. At least one maker has installed the tail light in a substantial mounting on one of the rear mud guards, while upon the other a place is provided for mounting the number tag. Such is the arrangement that plenty of light will shine on the number, while the position of both the lamp and the number on the guards insures them against that dusty obscurity which, by some motorists, is regarded as a not undesirable accident. In other instances, too, it is to be observed that the placing of the rear lamp, as well as the nature of the equipment itself, bespeaks a better appreciation of what really is necessary in this respect than used to prevail.

The need of special provision for the mounting of the number tag is greater than it used to be since it has become a provision of the laws of several states that only one number shall be carried at a time. That, together with the probable enforcement of the provision requiring the illumination of the number at night, makes it highly desirable that the motorist be given every facility for the rapid and convenient interchange of numbers, as well as for conforming to the law in other respects. There are numerous ways in which interchangeable and illuminated plates may be provided for at small cost to the manufacturer; several devices of the transparency order already are available, others may be contrived in all likelihood without infringing on protected rights, while there still remain a number of ways in which the ordinary tag may be carried by day and lighted by night which are so simple that the only wonder is they never have been put into effect.

#### Problems of the Emergency Motor Car.

Motor vehicles as applied to municipal service have reached just that critical stage where by careful handling ground may be gained in rapid strides, or where heedlessness or, more properly, lack of appreciation of what is involved, may result in serious loss of position. Throughout the country ambulances, police patrols and fire apparatus are being motor equipped tentatively. In a large proportion of cases, lack of information to the contrary leads to the supposition that it is affording good satis-

faction on a service basis; whether economically from the financial standpoint or not, is not of so great present moment. The point is that everywhere that the automobile is put to the severe and exacting test required of vehicles in municipal emergency work, it is of vast importance that it shall succeed.

One difficulty encountered arises from the inherent nature of the city or town administration. It is necessary to turn the machine over to the tender mercies of an operator who not only is perfectly familiar with local traffic conditions, who knows his road map, but also one who is a member of the organization or department employing the vehicle. A fire engine must be driven by a fireman, a police patrol by a member of the uniformed force, and, preferably, an ambulance by a man who is familiar with emergency hospital work. Under the circumstances, it is not always a simple matter to combine in a candidate otherwise perfectly satisfactory, that skill of hand and soundness of judgment which make a good chauffeur.

Sometimes, of course, it is possible to arrange for the prospective operator of such a machine to visit the factory and go through a systematic course of training. It should be so invariably, but it is not invariably so. Where the factory course is limited, or where it is necessary to pick up an untrained local man, the manufacturer of the car suffers a much greater risk than he does when he turns over a pleasure car to the tender mercies of a green chauffeur or an unsophisticated owner. There are fewer opportunities to counterbalance such risks by putting other cars into the hands of reliable drivers, and the work is so much more exacting that the chances of trouble are magnified exceedingly. It is not merely a question of a second or a third sale in a given locality that is involved; it is the reputation of the emergency motor car that is on trial.

Manufacturers and dealers who are seeking this by no means uninviting class of trade have good cause for vigilance in the arrangements which are made for the maintenance and operation of their product. As compared with the market for pleasure cars, the demand, of course, is very limited. At the same time, it is a line promising good reward and one well worth going after, as one manufacturer and another already have found out. Only, as in all commercial ventures, it is necessary to spare no expense

in building for a sound reputation. Thus early in the history of trade, it is the reputation of an industry quite as much as that of an individual maker which is at stake.

#### Putting Chauffeurs on a Cost Basis.

Like all other questions which the automobile industry has given rise to, the chauffeur problem gradually is undergoing a change. Once the motorist was troubled chiefly because he found himself subject to a system of graft which brought the already large operating costs of his machine to almost prohibitive proportions. But the flooding of the driver-labor market with the new-fledged products of a score or two of training institutions rejoicing in the name of schools, the efflux of ambitious young mechanics from the factories and the inevitable results of competition and enlightenment have reduced that evil to a point where it no longer counts in the same way it used to.

The difficulty of acquiring a good driver is not rendered as simple as might be expected under the circumstances, however.

It is possible to obtain a very good, prudent and reliable driver-mechanic at the standard rate of wage; it also is possible to obtain an inexperienced man, or one who is lacking in certain qualifications, at wages running down to what a second rate stenographer would demand. In either of the extreme cases there are compensating circumstances to be considered. It is to be expected that the high-priced driver will keep the car in such good order and run it so carefully that the upkeep expense will be exceedingly small; while it is equally to be expected that the low-priced man will develop a facility for running up repair bills that will be almost staggering in its monetary consequences.

Probably were a careful balance to be struck, it would be found that, lumping together the cost of upkeep and the chauffeur's wage, a reasonably fixed figure for maintenance per car mile would develop with any given make and model of machine. In other words, if you pay more for the driver your repair bills are likely to be proportionately less for every mile traveled, the cost of such repairs increasing proportionately with the decrease in the chauffeur's attainments as measured in terms of a lower rate of pay. Motorists who are considering the chauffeur problem with a view to making a change or of get-

## COMING EVENTS

July 7-9, Buffalo, N. Y.—Buffalo Automobile Trade Association's race meet.

July 8-9, Louisville, Ky.—Track meet at Churchill Downs; Homer George, promoter.

July 9, Plainfield, N. J.—Plainfield Automobile Club's second annual hill climb on Johnston's Drive, Watchung mountain.

July 9, Morrison, Col.—Town of Morrison's hill climb on Mount Morrison.

July 10, Cincinnati, O.—Track meet at Latonia Park; W. H. Wellman, promoter.

July 11, Plainfield, N. J.—Plainfield Automobile Club's annual hill climb.

July 11-15, Aberdeen, Wash.—Aberdeen Automobile Club's races on Cohasset Beach.

July 12, Charleston, S. C.—Charleston Automobile Club's beach races at Isle of Palms.

July 13, Winnipeg, Man.—Winnipeg Automobile Club-Winnipeg Motor Trades Association joint racemeet.

July 14, Chicago, Ill.—Chicago Automobile Trade Association's Orphans' Day.

July 14, Newport, Ind.—Newport Motor Club's second annual hillclimb.

July 15-16, Riverhead, L. I.—Motor Contest Association's second Long Island Stock Car Derby.

July 15-16, Dayton, O.—Automobile Club of Dayton's race meet.

July 15-19, St. Paul, Minn.—Minnesota State Automobile Association's second annual reliability tour for "Dispatch" trophy.

July 16-18, New York City—Motor Contest Association's reliability tour to Catskill, N. Y., and hill climb on Clove mountain.

July 18-22, Milwaukee, Wis.—Wisconsin Automobile Association's first annual endurance test for "Milwaukee Sentinel" trophy.

July 19-20, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

July 22-27, St. Paul, Minn.—Minnesota State Automobile Association's second annual reliability run for the "Dispatch" trophy; 660 miles.

July 24, New Braunfels, Tex.—San Antonio Automobile Club's hill climb.

July 28-29, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Club third annual interclub reliability team match.

July 30, Salt Lake City, Utah—Salt Lake "Telegram's" third annual hill climb.

July 30, Wildwood, N. J.—North Wildwood Automobile Club's race meet on Wildwood Speedway.

August 1, Minneapolis, Minn.—Minneapolis Automobile Club's reliability run.

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 12-13, Philadelphia, Pa.—Philadelphia "North American's" reliability run.

August 12-13, Indianapolis, Ind.—First 24 hours race on Indianapolis Motor Speedway.

August 15, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 15-19—Start of second annual Munsey Historical Tour from Philadelphia, and terminating at Washington, D. C.; 1,700 miles.

August 17, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

ting a man for a newly purchased car, should take this point into consideration.

The real measure of the driver's worth is not his ability to drive; anybody can drive a car presentably after a brief period of careful tuition. His value as an investment, so to speak, is measured in terms of his output, and the chauffeur's product is car miles. If the total cost per car mile is reasonably low, taking into account all contingent items, then the chauffeur is worth having, no matter what his wages happen to be. If the cost per mile is high, as compared with that developed by the

owners of similar machines operated in the same territory, it may be taken for granted that that particular man is not a good investment, and also regardless of his wage. The time is coming when motorists in engaging a driver will lay due stress on this point; when the economical driver will be considered the desirable man, whether he is addicted to baths and cigarettes or whether he is not a human ornament. One way to encourage the good driver is to offer premiums for economical operation; another is to fire him if the cost runs too high.

# PROTEST MARKS FINISH OF THE GLIDDEN

Chalmers Files Objection to Award of Chief Prize to Premier, the Winner on the Returns—Moline Gets Chicago Trophy Without Question—Technical Examination Does Not Change Standing—Reception in Chicago and Final Scores.

Chicago, July 2.—The result of the technical examination of the 11 cars that survived the most punishing of all Glidden tours did not in any way serve to alter the positions of the winners as already indicated by the road scores. The Premier "Six," driven by Ray McNamara, wins the Glidden trophy for touring cars, and the Moline, driven by C. H. VanDervoort, wins the Chicago trophy for roadsters and run-

abouts. The Chalmers representatives have filed a protest against the Premier, the apparent winner of the Glidden trophy. It is objected that the Premier has a special pump near the driver's seat which was used every few miles to inject oil in the crank case. This, the objectors say, is not part of the regular equipment of Premier cars, and the Premier entrants therefore are not stock cars, a violation of the rules. The

Chalmers representatives say that they have documentary proof from Premier owners that they have had to pay \$50 extra to have the special oil pumps on their cars. The Premier representatives state that 22 per cent. of their output has been equipped with these pumps.

The final score, including that of the technical examination, and the order of finish, is as follows:

## FOR THE GLIDDEN TROPHY.

No.	Car.	Driver.	Road Penalties			Brakes		Final Penalizations				Grand Total
			Control	Tech.	Sub Total	Foot	Hand	Spring Sag	Clutch	Axles	Other Details	
1	Premier	Ray McNamara	0	9	9	16	48	0	0	5	15	93
5	Chalmers	Wm. Bolger	0	39	39	0	36	0	0	0	41	116
7	Maxwell	H. E. Walls	0	59	59	0	33	0	0	35	81	208
2	Premier	Chas. L. Ballinger	220	500	720	15	41	0	0	10	20	806
10	Glide	Fred Castle	785	1,070	1,855	73	37	0	0	40	242	2,247
15	Cino	Walter Donnelly	977	1,168	2,145	38	142	5	0	0	84	2,414

## FOR THE CHICAGO TROPHY.

100	Moline	C. H. VanDervoort	0	12	12	0	0	0	0	0	7	19
107	Maxwell	Jesse Illingworth	0	43	43	0	0	0	0	0	8	51
102	Moline	F. E. Salisbury	25	37	62	0	1	0	0	0	2	65
101	Moline	J. A. Wicke	90	388	478	0	0	0	0	0	3	481
103	Lexington	J. C. Moore	508	874	1,382	0	133	0	5	0	522	2,042

Of the 26 cars that started, of course only the 11 that survived underwent the technical examination, the result of which is of unusual interest as showing the damage done by the frightful road conditions encountered. In addition to the brakes, this is revealed by the column "Other Causes" in the foregoing table, the causes in detail as listed by the technical committee which conducted the final examination in Chicago being as follows:

Car No. 1, Premier, Ray MacNamara.  
Front wheels, spindles, loose, 10 points; water connection, leaking, 1 point; engine hanger bolt broken, 2 points; spring clips loose, 2 points. Total, 15.

Car No. 2, Premier, C. L. Ballinger.  
Cylinder head plate, leaking, 2 points; spring leaf broken, right rear, 5 points; spring leaf broken, left rear, 5 points; ignition shaft loose, 1 point; hub flange bolt, broken, 1 point; rear reach rods on foot brakes, bent, 4 points; rear reach rod lever on foot brakes, bent, 2 points. Total, 20.

Car No. 5, Chalmers, Wm. Bolger.  
Fender iron broken, 6 points; steering gear loose on frame, 1 point; muffler cutout wire broken, 1 point; body bolt lost, 2 points; body bolt loose, 1 point; shackle bracket, loose, 2 points; ignition terminal

broken, 2 points; tie rod bent, 25 points. Total, 41.

Car No. 7, Maxwell, H. E. Walls.  
Bumper plate lost, 2 points; four spring clips loose, 4 points; spring leaf broken, right front, 5 points; grease cup lost, 2 points; front wheel loose, 5 points; steering yoke pin loose, 5 points; defective brake, 50 points; body bolt loose, 1 point; fender bracket loose, 2 points; front wheel bearing loose, 5 points. Total, 81.

Car No. 10, Glide, Fred Castle.  
Spring leaf broken, right rear, 5 points; muffler loose, 2 points; rear axle housing parted, 150 points; fan belt lost, 2 points; fan pulley, broken flange, 25 points; radiator, leaky connection, 1 point; spring leaf broken, left front, 5 points; three spring straps lost, 3 points; front wheel, loose, left, 5 points; front wheel, spokes loose, left, 5 points; front wheel, loose, right, 5 points; front wheel, spokes loose, right, 5 points; fender broken, 5 points; step bracket, broken, 6 points; steering column crank, loose, 15 points. Total, 242.

Car No. 15, Cino, Walter Donnelly.  
Three grease cups lost, 6 points; rear spring bracket, bent, 15 points; pressure pipe on gasoline feed line, loose, 1 point; radiator leaky, 20 points; engine bolts, loose, 2

points; front wheels, both loose, 10 points; fender loose, 2 points; muffler, final exhaust pipe loose, 1 point; two fender irons broken, 12 points; spring leaf broken, right front, 5 points; spring leaf broken, right rear, 5 points; spring leaf broken, left rear, 5 points. Total, 84.

Car No. 100, Moline, C. H. VanDervoort.  
Front wheel bearing, loose, 5 points; fan blades, impaired, 2 points. Total, 7.

Car No. 101, Moline, J. A. Wicke.  
Gasolene leak, 1 point; steering column, finishing plate on dash, lost, 2 points. Total, 3.

Car No. 102, Moline, F. G. Salisbury.  
Muffler nut, lost, 1 point; steering column sleeve loose, 1 point. Total, 2.

Car No. 103, Lexington, J. C. Moore.  
Ball and socket timer connection broken, 5 points; both steering yoke bearings, loose, 10 points; wheel bearing, loose, 5 points; grease cup, lost, 2 points; frame side member, broken, 500 points. Total, 522.

Car No. 107, Maxwell, J. Illingworth.  
Spring clip, loose, 1 point; nut on step bracket bolt, lost, 2 points; front union on muffler, loose, 1 point; rear fender screw, lost, 2 points; fan belt, lost, 2 points. Total, 8.

## How the Glidden Survivors and Near-Survivors Finished in Chicago

Chicago, June 30.—Chicago turned out this afternoon with a brass band and a string of cars a mile long to welcome the Glidden tour and escort the remnants to the final control. Jackson boulevard was lined with people who ran the gamut of emotion, from tears to laughter, at the Gliddenites. To the pensive, the little string of cars followed by the longer string of the escort suggested a funeral or a G.

by the car just ahead. Nine hours of this touring did wonders in the way of "make up" for the Gliddenites. When Chicago beheld them, many had removed their goggles and showed pallid patches around their eyes, which amid the surrounding encrusted dirt resembled the make-up affected by some burlesque slap-stick comedians. Others showed a blazing red nose gleaming from

eddy always finds a place beside real tragedy, and if those cars didn't suggest a tragedy, Chicago would like to know what tragedy is.

Immediately upon the arrival of the cars at the Royal Tourist garage, the technical committee began its part of the work by trying the clutches and brakes.

The cars that finished and their total road penalizations to date were as follows:

### Glidden Contestants.

1	Premier, Ray McNamara.....	9
2	Premier, Charles Ballinger.....	790
5	Chalmers, William Bolger.....	39
7	Maxwell, H. E. Wells.....	59
10	Glide, Fred Castle.....	1,755
15	Cino, Walter Donnelly.....	2,143

### Chicago Trophy Contestants.

100	Moline, C. H. VanDervoort.....	12
101	Moline, J. A. Wicke.....	478
102	Moline, F. G. Salisbury.....	62
103	Lexington, J. C. Moore.....	1,382
107	Maxwell, J. Illingsworth.....	43

There were no penalizations in today's run. The roads were generally poor. The deep dust hid holes that menaced axles and springs, so that it was necessary to drive cautiously. The schedule of 20 and 18 miles an hour was ample for the conditions, and many of the contestants arrived here an hour ahead of the schedule.

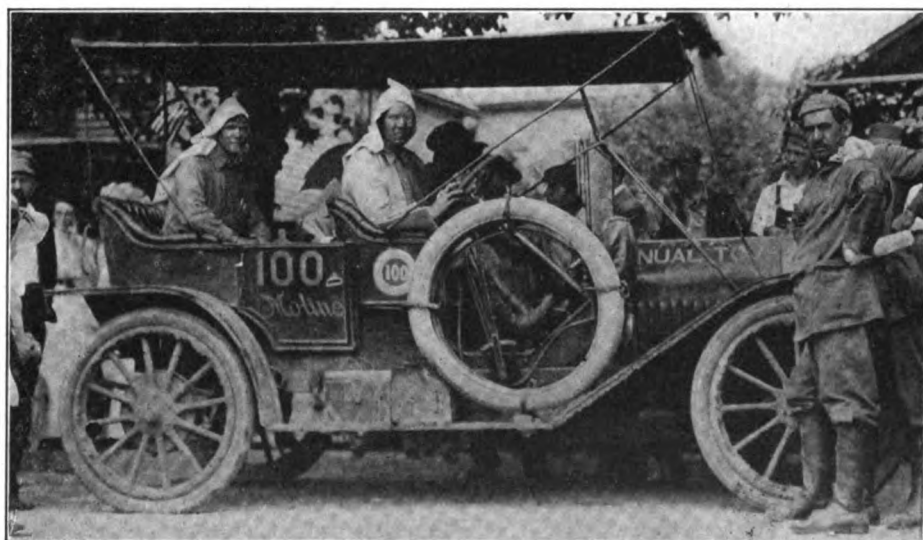
The Moline cars had the head of the line



RAY F. McNAMARA (PREMIER), WINNER OF GLIDDEN TROPHY

A. R. parade. The dusty survivors coughed and wheezed. Here was a car with the springs smashed, two rear tires frazzled and flat and its axles bent until the wheels described snake tracks on the asphalt as they wobbled down the street; there was another with a right fender shorn off, looking like the loser in a dog-fight. Yonder was one whose cylinders were counting: "One-two-three-chug, one-two-three-chug" as the one-lunger ambled consumptively along. Each and all showed marks of the fray, of journeying at 20 miles an hour over the prehistoric pike from Louisville to Nashville, of wading through the treacherous fords of Tennessee and the cypress swamps of Mississippi, and battling with the slimy ooze of Arkansas and the sands of Texas.

Laughter found its justification in the grotesque appearance of the Gliddenites. The last day's run from Davenport, Iowa, to this place was the dustiest of the entire four weeks. Constant traffic has reduced the roads to dust heaps. Horses kick up clouds that swirl up and obscure the vision, while every automobile whirls along with a trail like a yellow tornado. Vegetation on either hand is sickly from the drought and almost buried in the constantly-accumulating dust-storms. Through this land the Gliddenites "beat it" today, hot upon each other's trail. "They stayed not for brake and they stopped not for stone." Each car whirled along in a nimbus created



C. H. VANDERVOORT (MOLINE), WINNER OF CHICAGO TROPHY

amid their other dust-encrusted features. Some were bareheaded, their locks loaded with dust like the weeds of the wayside. Some wore hats, some caps, some turbans made of bandanas, and some had towels borrowed from the last hotel twisted around their heads. Everyone was thoroughly plastered with dust and made a picturesque-looking array. It was hardly to be wondered at, therefore, that uncontrollable shrieks of laughter were heard on all sides as the procession meandered toward the New Southern Hotel. True com-

on checking out this morning at 6 o'clock. This was because the route led through Moline. That city gave the Moline cars an ovation, which had extra enthusiasm from the fact that Moline No. 100 was regarded as the sure winner of the Chicago trophy.

At Rochelle, where the noon stop was made, two local sharks cleaned up the Gliddenites by charging them 50 cents for a bowl of bread and milk. The price was not fixed until after the food was eaten. The Gliddenites supposed it was another Ladies' Aid Society enterprise.

Among the non-contesting cars which arrived here were the two Cadillac "gunboats." The cadets who manned them had a practical education in mechanics in fixing up the cars after their various experiences. The one great event in the tour for them was the breaking of an axle on one "gunboat" and the sinking of the other in the mud, both on the old battlefield of Iuka, Miss.,

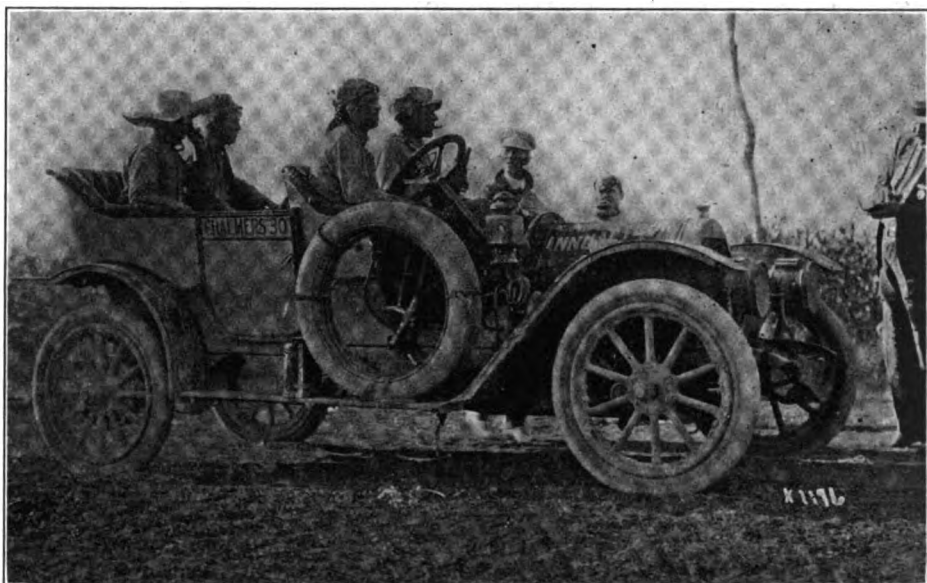
where 1,000 Confederates under Van Dorn surrendered in June, 1862, to Gen. Price. The cadets consider it a remarkable coincidence.

The two Cartercars arrived, too, with the triumphal procession, but were not allowed to take part in the parade, as they were shipped part way by train. The massacre of press cars was well nigh an extermination;

at one time not a single press car was in commission, but the Westcott was finally resuscitated and came on. So did the Halladay, the Great Western, the Columbia, pace-maker; the Reo official car, the Chalmers confetti cars, the Falcar, and Ohio No. 12. There were 19 cars in the parade, and the Molines brought up the rear with a parade of their own.

## Some Reflections Born of Experience on the Glidden Tour

Chicago, July 1.—While the members of the technical committee are investigating the cars to determine just what actual injury it did them to go 2,853 miles over as rough and impassable a route as could be laid out in America, the survivors are thinking. It is a mournful source of pleasure to reflect that they have done all that was asked of them, but they see clearly that they should never have been asked to go such a route at all. Cars can go at 20 miles an hour over the Louisville-Nashville pike where the pavement is of stones pointing up like axe blades, but of what use is it to have done so when no private owner would ever think of going more than 20 miles a day over such a road? They have shown that the pine barrens of Alabama and Mississippi, whose ox-cart trails have been washed and gashed by the rains and never repaired since the Civil War, but of what avails the demonstration, is the prevailing question, inasmuch as no private



WM. BOLGER (CHALMERS) NEAR-WINNER OF GLIDDEN TROPHY



JESSE ILLINGSWORTH (MAXWELL) RUNNER-UP FOR CHICAGO TROPHY

owner would ever think of going over such roads under any circumstances. It is the utter futility of the demonstration just ended at such a fearful cost in cars that makes the survivors feel as if they had been bucoed by the contest committee into paying \$300 entrance money for making the tour.

Another reflection is that as a publicity

stunt the tour was a failure. The havoc among the press cars and even among competing cars rendered it necessary for the press representatives to go from control to control by train. By so doing they could not do full justice to the day's run. And when they did ride in the cars, they generally arrived so late and in so exhausted a condition from the effects of the sun and

the long mileage that they did not have strength enough left to write the day's story. Even the officials in charge of the tour now admit that they overdid the matter of the length of the days' runs and defeated the publicity part of the tour.

It is generally conceded that the slaughter of cars would not have been so heavy had there been more good drivers. A large number of those on the tour might be qualified to drive a taxicab in New York or Chicago, but as drivers in this tour they were car-wreckers. Older and more experienced drivers like Bill Bolger, Ray McNamara, C. H. VanDervoort, J. A. Wicke, J. Illingsworth and F. G. Salisbury brought their cars through the worst of road conditions with little damage to their frames or running gear. Some of them preferred to take penalizations of time in arriving late at control to wrecking their cars in trying to keep up with the 20-hour schedule required by the committee over the worst roads. They chose to drive rationally, irrespective of the humors of the officials. And it is the big joke of the tour that C. H. VanDervoort should be the winner of the Chicago trophy. For he was generally the last to start in the morning and the last to get in at night. And he was the one to whom the well-meaning but misguided public who believed that the whole thing was a race would shout hun-

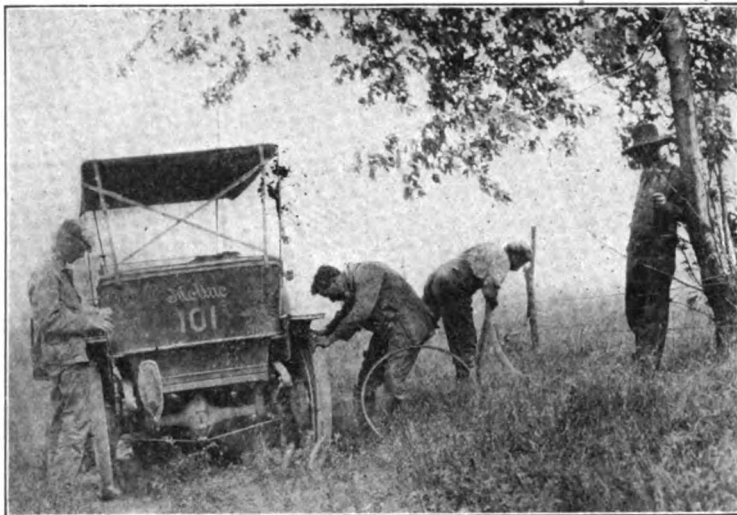




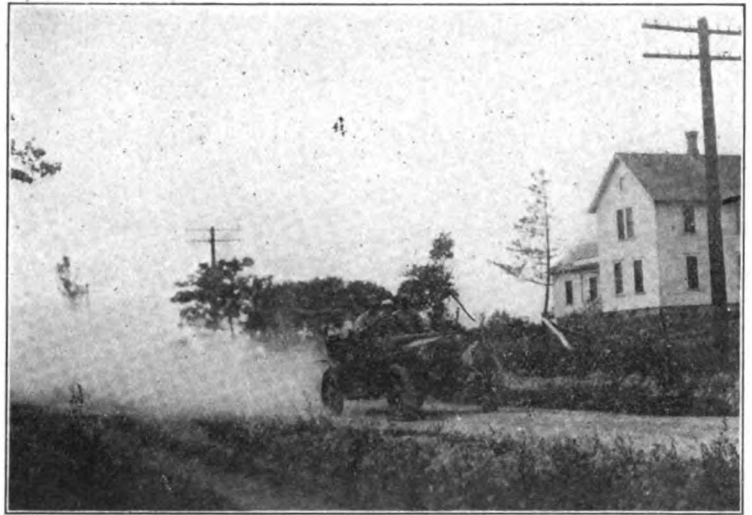
ONE OF THE SIGNS IN WHICH THE GLIDDENITES BELIEVED

dreds of times daily, "You're late. The rest went by an hour ago!" He was merely driving at the maximum schedule of 16 miles an hour, as a private owner would do under the same conditions, and his policy won.

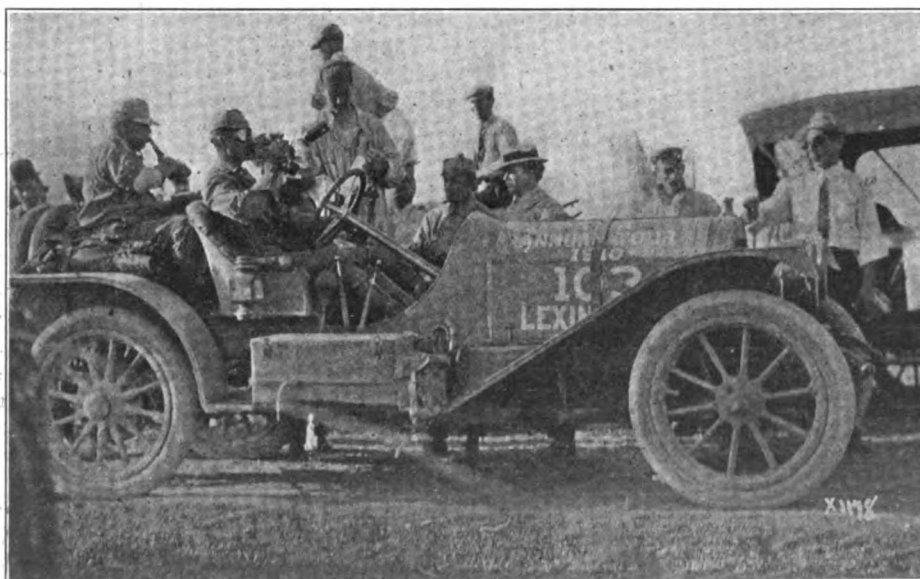
On the other hand, the ambition of young amateurs to pose as Vanderbilt cup race drivers was responsible for the early downfall of many cars. The Cole car, it will be recalled, was smashed on the first day's run because its driver wanted to go fast, and essayed to pass another car and a vehicle from the other direction. The driver of the Falcar had a great time passing everybody for the first few days. He was young and irrepressible. Eventually he spent about as much time under the car as he did in it. The driver of the Cino had everybody terrorized by his sensational driving, but put it out of any chance for a trophy by slamming it into ditches and against stumps. It is regarded as a re-



THE PUNCTURE VILLIAN PRESENT TO THE VERY END



ON A GOOD ROAD AND WITH CHICAGO ALMOST IN SIGHT



THE EFFECT OF THE SIGN AND SOME OF THOSE WHO BELIEVED IN IT

markably good car to have come through at all under such punishing driving. The drivers of the Cartercars and the press cars gave their machines little chance for honors in such a tour. They were always for the head of the line. "Beat it" was their motto. Experienced Gliddenites were able to pick out the cars that would fall down by watching the methods of the drivers on the first two days' run.

This tour was characterized by some noticeable departures from the tours of former years. For one thing, there was missing the wild orgy of spending money on arriving in control, like sailors blowing in after a cruise. No more bridal chambers for drivers and mechanics at the best hotels. This year the drivers and mechanics were under restraint. Each manufacturer represented by two or more cars and crews put his squad in charge of one man. This man would arrange for the accommodations of his crews. There was no separate room

for each man. Instead, there were from two to six or even 12 beds in a room, and the crews occupied them. The representatives of the firm settled the bill. Any day one could see the Chalmers representative dealing out a bottle of milk and several sandwiches to each of his crew. This was their rations for the noon control. Of course, if there was a "hand-out" at any place, the crew got the benefit of it. If they bought a drink at the end of the day's run, they did not put that in the expense account, as formerly. So, too, the Premier representative ruled his crews with economy, and the Moline crews looked to W. H. VanDervoort for their daily needs. As to the nightly entertainments provided by clubs in the various night controls, they were generally patronized poorly by the Gliddenites. The latter generally got in so late and were so worn out with the heat and long riding that what they wanted most was sleep. Besides, Dutch lunches have come to be regarded as a poor preparation for a day's run of 200 miles over hard roads, and it was felt that there was too much at stake to have the chances of winning dissipated by late wassails. Each crew was kept under rigid restraint by the representative of the different manufacturers. It is generally conceded that the day for high jinks in connection with the Glidden tour is over. As to the prospects for another Glidden tour another year, the general opinion is, "Oh, I suppose they will catch another bunch of suckers another year."

#### New Law Discriminates Against Motorists.

Gradually it is being made more unpleasant for such motorists as have small regard for the speed limit. An unexpected instance of this is found in the interpretation of a new law, which is intended to spare ordinarily peaceable citizens of New York City the indignity of summary arrest for minor infractions of the law. By the terms of the inferior courts law, as it is known, which goes into effect on the first of September next, the police commissioner may issue to well-disposed people cards of identification. In the event of any violation of the ordinances, a citizen equipped with such a card merely will display it to the police and receive a summons to appear in court for trial, instead of being rushed off to the station house. The only exceptions to the summons rule will be violations of the motor vehicle law and breaches of the peace.

#### Oklahomans Organize Another Club.

Hobart (Okla.) motorists have organized the Kiowa County Automobile Association, with fifty charter members and the following officers: President, D. A. Scott; vice-president, R. R. Ash; secretary, R. M. Simmons; directors, A. R. Stinson, R. A. Hording, Dr. E. F. Dunlap, C. H. Griffith, Charles Poston, Dr. Brice and James Portwood.

## WHIZZING THE MILE AT WILDWOOD

### Despite Many Trials on Seaside Straightaway, the Record Still Stands—Woman Wins a Consistency Contest.

But for the celerity of the officials in running the events, the program of races and time trials at Wildwood, N. J., on July 4th would have been very tiresome, because of the length of the program. There were no less than 19 events carded, but the officials knew their book and the crowd did not have long to wait between events—a condition that has marred previous gatherings at that seaside resort.

The events were held under the auspices of the North Wildwood Automobile Club and on the mile straightaway. Because of the holiday, the crowd was unusually large, but the policing was excellent and not a mishap occurred during the entire program.

A stiff wind blew across the course, and but for that the record of 41 seconds for the course might have been lowered. As it was, the best time was made by J. Fred Betz, 3d, of Philadelphia, who drove his Simplex car over the 5,280 feet of gravel road in 45 seconds in the time trials. The next fastest time was scored in the motorcycle events, W. J. Teubner covering the distance in 45½ seconds.

A consistency run between Philadelphia and Wildwood, in which 56 cars started and finished, was the curtain-raiser for the carnival, that event being held on Saturday, 2nd inst. The cars started at intervals of one minute and were allowed 6 hours 8 minutes to reach Wildwood. Secret observers were stationed at various points along the route, their observations being made the criterion for the awards. A Miss Gallagher, driving a Franklin car, made the most consistent performance, and therefore was awarded the first prize, she being assessed only 5¼ points. F. B. Wildman, Chadwick, was a close second, with a penalization of 6 points. Mrs. D. Walter Harper, Stanley, was third, 8½ points out of the way. It was a great surprise to the men to discover that the women were the most consistent drivers. The summaries of the Fourth of July events follow:

Special event—Won by J. Fred Betz, 3d, Simplex; second, Stanley Martin, Houghton-Rockwell. Times, 0:52½ and 0:54½.

Runabouts, \$1,200 and under—Won by G. G. Stranahan, Warren-Detroit; second, Tom Wilkie, Buick. Times, 1:06 and 1:14½.

Touring cars, \$1,201 to \$2,000—Won by Phillip Hines, Buick; second, Tom Wilkie, Buick; third, Frank Yerger, E-M-F. Times, 0:59½, 1:09½ and 1:10.

Touring cars, \$2,001 to \$3,000—Won by C. A. Warren, Stoddard-Dayton; second, Ernest Stein, Speedwell; third, Ira L. Brown, Jackson. Times, 1:05½, 1:06½.

Touring cars, \$3,001 to \$4,000—Won by R. Fertig, American; second, George Parker, Palmer-Singer; third, Norman St. Adiger, American. Times, 0:58½ and 0:59.

Touring cars, \$4,000 and over—Won by Harry Hartman, Houghton-Rockwell; second, Stanley Martin, Houghton-Rockwell. Times, 0:59½ and 1:10.

Stripped chassis, \$1,200 and under—Won by G. G. Stranahan, Warren-Detroit; second, J. L. Fritz, Warren-Detroit; third, Tom Berger, Warren-Detroit. Times, 1:01½, 1:01½ and 1:06½.

Stripped chassis, \$1,001 to \$2,000—Won by H. P. Hardesty, Pullman; second, Ernest Stein, Speedwell; third, Mercer. Times, 1:01½ and 1:04.

Stripped chassis, \$2,001 to \$3,000—Won by C. A. Warren, Stoddard-Dayton; second, Ira L. Brown, Jackson; third, C. J. Rogers, Chalmers-Detroit. Times, 1:03½ and 1:08½.

Stripped chassis, \$4,000 and over—Won by J. Fred Betz, 3d, Simplex; second, Stanley Martin, Houghton-Rockwell; third, Louis Disbrow, Knox. Times, 0:48½, 0:53.

Free-for-all—Won by J. Fred Betz, 3d, Simplex; second, Ernest Stein, Speedwell; third, Louis Disbrow, Knox; fourth, C. J. Rogers, Chalmers-Detroit; fifth, Stanley Martin, Houghton-Rockwell. Times, 0:51½, 0:53½, 0:54½.

Special event—Won by R. Fertig, American; second, George Parker, Simplex; third, C. A. Warren, Stoddard-Dayton; fourth, Ernest Stein, Speedwell. Times, 0:57½, 0:58.

Winners' handicap—Won by G. G. Stranahan, Warren-Detroit; second, Tom Berger, Warren-Detroit; third, Harry Hartman, Houghton-Rockwell; fourth, F. Fred Betz, 3d, Simplex. Time, 1:10½.

Time trials—J. Fred Betz, 3d, Simplex, 0:45 and 0:47; Stanley Martin, Houghton-Rockwell, 0:48½ and 0:51; Louis Disbrow, Knox, 0:52 and 0:51½; Harry Hartman, Houghton-Rockwell, 0:52½ and 0:54½; W. H. Sharp, Sharp-Arrow, 0:53½ and 0:55½; C. J. Rogers, Chalmers-Detroit, 0:55½ and 0:56½; George Palmer, Palmer-Singer, 0:57 and 0:54½; Tom Berger, Warren-Detroit, 0:58½ and 1:01½; J. T. Sherman, Packard, 1:02½; Mrs. Joan Cuneo, Knox, 0:54½.

Fastest time made by motorcycle—W. J. Teubner, Merkel, 0:45½.

#### Connecticut Halts a No-Muffler Chap.

Herman Steinberger, a young New Yorker, driving a foreign car, this week discovered that however much he personally may "like the noise" that comes from an open muffler, the Connecticut law forbids it and means what it says. The young man with the big noise was arrested in Hartford and haled to court, although he was in a hurry to reach New York. The arresting policeman first ordered him to close his cut-out, but later it developed that the car had no muffler at all. Steinberger had one applied before he left town.

## THE MOTOR WORLD

### HONORS CLOSE IN ST. LOUIS RUN

**Technical Committee Wipes Out All Clean Scores—Merz, in a National, Gets the First Award.**

Although six of the 28 contestants in the three days' endurance contest held by the St. Louis Automobile Manufacturers and Dealers' Association on June 28, 29 and 30 finished the 418 miles of give-and-take roads with perfect road scores, the subsequent findings of the technical committee soiled all the clean sheets and developed a winner in the person and car of Carl Merz, and his National. Merz was one of those who finished with a perfect road score, but the technical committee assessed the car 8 points. Honors were very close, for B. W. Olin, Oldsmobile, and E. E. Ernest, Columbia, finished only 1 point behind Merz, and Frank DeLaney's Buick was only two points behind the winner.

The contest started from St. Louis, Mo., on June 28th, the first day's journey taking the contestants to Hannibal, a distance of 148.1 miles. One mishap was sufficient to put the Rambler, driven by Will Smythe, out of the running. The car skidded on a double curve three miles south of Clarksville on the Pike County road, and collided with a telegraph pole, bending the front axle and putting the radiator out of commission. Between Wentzville and Moscow the worst mud was encountered, and several cars lost points in this stretch.

Sixteen scores remained perfect at the ending of the first day, the penalized drivers, their cars and scores being: Eli Coillutte, Moon, 971; Val Heinrich, Maxwell, 998; B. W. Olin, Oldsmobile, disqualified; C. M. Barnard, Mitchell, 990; E. J. Moon, Moon, 975; Will Smythe, Rambler, disqualified; Matthew Vlaval, Moon, 998; Arthur J. Whittaker, Everitt, 994; J. H. Little, Mitchell, 993; Walter Saiegon, Pope-Hartford, 999; Roy Anselm, Hupmobile, 975; Ed. Holthaus, Marmon, 977; R. B. Koken, Stearns, 994; A. A. Franklin, Haynes, 886.

The disqualification against Olin's Oldsmobile was removed after the second day, when it was discovered that the observer had mistaken the removing of a tire chain that had been placed upon the running board as being a repair. Many other drivers lost points between Hannibal and Mexico, however, reducing the number of perfect scorers to nine. The Haynes car was delayed 2½ hours on account of the driver, A. A. Franklin, being arrested upon arriving at Hannibal upon the complaint of a farmer who refused to give any road directions and caused an altercation in which several blows were struck. The argument took place just out of New London. Franklin was released without being compelled to pay a fine, but the delay caused him to be

a half hour late at the night control. The distance of the day's run was 143.3 miles.

The return leg from Mexico to St. Louis was the shortest day's travel, the distance being only 127 miles. The entire 30 cars pulled into St. Louis in the afternoon of June 30, with remarkably light road penalizations against many of them, seven finishing with clean scores, which later were riddled, however, by the technical committee.

There was one incident to create some excitement before the contestants left Mexico in the morning. The observer on the Moline car was detected drinking a bottle of beer by an over-zealous constable. It is a horrible crime to drink any spiritous liquors in dry Mexico, and the constable promptly seized the contraband wet goods and haled the observer and his other occupants of the car to the police station. Despite the assertions of the party that the beer had been purchased in Hannibal and not in Mexico, the judge only allowed the party to proceed after \$8.50 had been collected. That almost is a record high price for bottled beer.

The cars began arriving in St. Louis soon after 2 p. m., and as soon as they were checked in were looked up and thoroughly examined by the technical committee, consisting of Stewart McDonald, Moon Motor Car Co.; G. P. Dorris, Dorris Motor Car Co.; A. R. Walton, St. Louis Car Co., and W. P. M. Stevens, representative for the American Automobile Association, under whose rules the contest was held. The machines first were subjected to a brake test and then clutch test, after which they were examined in the official garage, the committee going over every nut and bolt and each mechanical detail. Before the technical committee began its work the perfect scores were Charles E. Goldthwaite, Overland; Frank DeLaney, Buick; E. E. Ernest, Columbia; Carl Williams, Haynes; C. Merz, National; H. M. Paine, Interstate, and W. von Steiger, Moline.

These perfect scores were removed from their position, however, when the technical committee put on its magnifying glasses. Merz lost 8 points, and Ernest lost 9 points for loose nuts and screws. The medal for hard luck will be given A. A. Franklin, who drove a Haynes. Crossed ignition wires caused a penalty the first day, and when he was arrested the second day the motor was stopped 125 minutes while waiting for the wheels of justice to turn, and that caused a penalization of 125 points. The balance of debit was caused through lateness at controls. R. B. Koken's Stearns was disqualified because it was found the brake had been wired to keep it in place, and the Marmon, which was withdrawn, continued as a non-contestant and finished. The Star trophy, a magnificent silver cup, will go to Merz, and the winners in the various classes will receive certificates. Following is the official summary:

Driver and Car.	Points.
C. Merz, National.....	992
B. W. Olin, Oldsmobile.....	991
E. E. Ernest, Columbia.....	991
Frank DeLaney, Buick.....	990
W. B. Fewell, Oldsmobile.....	983
W. von Steiger, Moline.....	979
H. L. Bagley, Ford.....	979
Val Heinrich, Maxwell.....	978
H. L. Chure, Amplex.....	977
C. E. Goldthwaite, Overland.....	975
C. M. Barnard, Mitchell.....	972
Carl Williams, Haynes.....	958
Walter Saiegon, Pope-Hartford.....	957
E. J. Moon, Moon.....	956
W. F. Bagnell, Cadillac.....	940
J. H. Little, Mitchell.....	939
J. M. Dunwoodie, Stearns.....	934
A. J. Whittaker, Everitt.....	932
Matthey Blavalt, Moon.....	893
H. M. Paine, Interstate.....	880
Roy Anselm, Hupmobile.....	874
Eli Coillutte, Moon.....	873
J. T. Rumble, Dorris.....	843
James Ladd, Buick.....	770
J. E. Baker, Dorris.....	713
A. A. Franklin, Haynes.....	695
N. C. Tuxbury, Buick.....	691
Ed. Holthaus, Marmon.....	Withdrawn
Will Smythe, Rambler.....	Disqualified
R. B. Koken, Stearns.....	Disqualified

### Ocean City Motorists Prove Good Guessers.

Fifteen members of the recently organized Ocean City (N. J.) Automobile Club participated in a guessability or sealed time run from that resort to Cape May, N. J., on Manday last, 4th inst. The sealed time for the round trip for the Ocean City prize was 3 hours 33 minutes 30 seconds, and P. F. Stanton, driving a Cadillac, came within 15 seconds of the required time. Allen Scull, E-M-F, finished second and also received a cup, and E. M. Sutton, Mitchell, and Dr. H. F. Loesch, E-M-F, will draw lots to determine the recipient of the third prize, these two having tied. The sealed time for the single trip from Ocean City to Cape May was 1 hour 46 minutes 45 seconds, and the surprise was that three competitors tied for highest honors, finishing together within 1 minute 15 seconds of the required time. The disposition of the cups will be decided by William F. Smith, Maxwell; Albert Fogg, Knox, and W. G. MacFarlane, Warren-Detroit, the trio of winners. The route was from Ocean City to Cape May via Goshen and South Dennisville, and all the cars except one made the trip without any difficulty.

### Two Automobile Clubs Elect Officers.

The Grand Island (Neb.) Automobile Club has elected the following officers for the ensuing year: President, L. M. Talmadge; vice-president, Jack Donald; secretary and treasurer, Roy Brininger.

The Omaha (Neb.) Automobile Club has elected officers for the ensuing year, as follows: President, E. H. Sprague; first vice-president, Frank Parmalee; second vice-president, W. R. McKeen, jr.; secretary, A. H. Feters; treasurer, L. C. Nash. Directors—A. P. Guion, J. W. Parish, Dr. J. P. Ford, Gould Dietz.

## RECORD-WRECKING ON INDIANAPOLIS TRACK

Another Memorable Three-days' Meeting on the Speedway Results in Many New Figures—Feature Events Overshadow Many Minor Races—Burman Loses the Helmet but Wins the Brassard and Dawson Captures the "Big" Race and the Cobe Trophy.

When the Indianapolis (Ind.) Motor Speedway was constructed a little less than a year ago there were many who gazed upon its huge  $2\frac{1}{2}$  miles ellipse and predicted failure for the magnificent course that had cost several hundred thousand dollars to build. If there were any of those same persons present at the Speedway on Friday, Saturday and Monday last, July 1, 2 and 4, doubtless they held a different opinion. There was fine racing and

loth did well until they had trouble with their cars and were unable to stop the fierce onslaught made by Dawson.

Until Burman's appearance at the Indianapolis meet references to a "bullet-like flight" had been more or less imaginative. Burman, however, appeared with a specially designed car that had every appearance of a huge projectile and the odd-shaped car caused much comment. It as closely resembles the catalogued Buick as a battle-

be between Burman and Arthur Chevrolet both driving Buicks. This especially was true when Harroun's Marmon drew up to the repair pits after 10 miles of sizzling going and when Dawson, also on a Marmon, hung on for more than half the distance and then was obliged to follow Harroun's example. Burman and Chevrolet alternated in the lead, and this kept the interest of the spectators above par until Burman scooted over the tape at the end of 50 miles in 40:03.07, breaking the previous record of 42:41.83, made by Harroun at the Indianapolis course last May.

Another interesting event was the 10 miles free-for-all for the Indianapolis Motor Speedway helmet. After one attempt to get the cars away from a flying start the starter gave up the job and sent them away from a standstill. The eight entries were classy and Aitken's National burned the bricks, but was overhauled and passed by Hearns, in the Benz, who finished in front in 7:13. Burman won the helmet at the May meeting, and under the deed of gift has been drawing cigarette money to the tune of \$50 a week ever since. Burman wore the helmet in Friday's race and seemed greatly disappointed when he had to pass it over to Hearne.

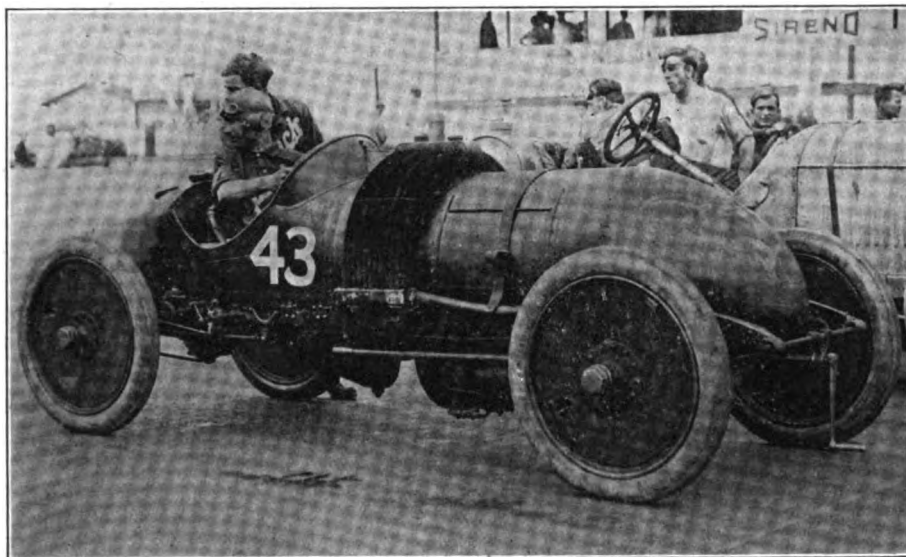
Speedway records were lowered in the 5 miles event for 161-230 cubic inch cars and the 10 miles race for cars in the 231-300 class. Louis Chevrolet won the former in 4:40.08, breaking his own record of 4:41. In the 10 miles race Burman scurried away at the start like a scared rabbit and was never headed, finishing in 8:14.46. Harry Grant, the Vanderbilt cup winner, scored in a 10 miles race with his Alco car and Greiner, on a National, brought home the bacon in the amateur race. The summaries:

Record trials—Best time made by Louis Chevrolet, Buick. Times, one mile, 0:37.95; one kilometre, 0:22.43; one-half mile, 0:17.54; one-quarter mile, Robert Burman, Buick, 0:08.51.

Five miles, 160 cubic inches—Won by Roberts, Herreshoff; second, Meddock, Empire; third, McCormick, Herreshoff. Time, 5:30.61.

Five miles, 161-230 cubic inches—Won by L. Chevrolet, Buick; second, Burman, Buick; third, Miller, Warren-Detroit. Time, 4:40.80.

Ten miles, 231-300 cubic inches—Won by Burman, Marquette-Buick; second, Dawson, Marmon; third, Harroun, Marmon. Time, 8:14.46.



BURMAN IN THE BUICK THAT BEARS NO FAMILY RESEMBLANCE

good crowds, and in every other way was it a memorable meeting.

There were sufficient exciting incidents to thrill even lethargic persons, and happily for all concerned there was not a single accident to mar the occasion. It largely was a Buick meeting insofar as cars were concerned, as well as a Michelin tire sweep, the latter making winning 22 of the 26 races; but there were sufficient close races to give the Buick pilots a run for their money and also one sturdy car and driver who "tied the can" on the Buick crew in the feature race of the meet, viz., the Cobe Trophy race on Monday. The man was Dawson and the car a Marmon.

Last year the Cobe Trophy race was held on the roads in Indiana, over a course known as the Crown Point circuit, and upon that occasion Louis Chevrolet snatched the victory with his Buick car. The Buick stable particularly was anxious to duplicate their performance and with that object had entered Burman, Louis and Arthur Chevrolet. Louis soon was out of the running, but Arthur Chevrolet and Burman

ship resembles a rowboat. Burman is an intrepid driver and he made good by winning, besides several minor races, the G & J trophy and Remy Grand Brassard events on Friday and Saturday, although he was forced to relinquish the Speedway helmet to Hearne on the former day. Burman also figured largely in the record-smashing, as did the Chevrolet brothers.

### Herne Takes the Helmet from Burman.

With a large crowd in attendance, the opening day's racing was the most successfully carried out of any that have predominated at the Indianapolis Motor Speedway. The entire program of events was replete with exciting incidents and free of accidents. As usually is the case, the best event was saved until the last, this coming with the running of the 50 miles race for cars in the 231-300 cubic inches category for the G. & J. Trophy, valued at \$1,000. In addition to the trophy there were cash prizes of \$150, \$100 and \$50. Eleven cars started but early in the race it was seen that, barring accidents, the outcome would



Fifteen miles, 301-450 cubic inches—Won by Burman, Buick; second, Aitken, National; third, A. Chevrolet, Buick. Time, 11:46.42.

Ten miles, 451-600 cubic inches—Won by Grant, Alco; second, Wilcox, National; third, Greiner, National. Time, 8:03.09.

Ten miles handicap, free-for-all—Won by Sutcliffe, Maytag (3:50); second, Davis, Great Western (3:00); third, Miller, Warren-Detroit (2:51). Time, 10:01.78.

Five miles amateur—Won by Greiner, National; second, Tousey, National. Time, 4:14.95.

Ten miles free-for-all, for Speedway Helmet—Won by Hearne, Benz; second, Harroun, Marmon; third, Zengle, Chadwick. Time, 7:13.

Fifty miles, 231-300 cubic inches, for G & J Trophy—Won by Burman, Buick; second, A. Chevrolet, Buick; third, Pearce, Fal Car. Time, 40:03.7.

#### How Burman Won the Remy Brassard.

As dust before a hurricane, so were records blown from the books on Saturday, the second day of the meet. The wholesale slaughter began when Roberts created a record for 10 miles in the 160 cubic inches class, and finished after sunset when Burman whirled to the finish in the 100 miles race of the 301-450 cubic inches class for the Remy Grand Brassard.

The Remy Brassard grind was the feature race of the day, and it came after several sharp skirmishes had been fought in the short distance events. The great field of starters began to knock the records galley west at the 20th mile, when Kincaid delivered a Reno knockout to Harroun's Marmon-Atlanta mark by reeling 20 miles in 15:48.83. At 30 miles Kincaid was still hammering Father Time to a pulp, covering the distance in 31:47.8, but tire trouble a few minutes later allowed Burman to sweep past with a triumphant roar. Burman remained in front from then until the finish and set up new records for 40, 50, 60, 70, 80, 90 and 100 miles, respectively, in 31:47.86, 39:47.86, 48:15.2, 56:05.65, 1:04, 1:12:27.8 and 1:20:35.6. Earlier in the afternoon Chevrolet broke the 10 miles mark in the same class by covering the distance in 7:54.8, which broke Burman's record made the day before. In a 10 miles race for 161-230 cars Chevrolet slashed another record by finishing in 8:55.4.

Curly-haired, smiling George Robertson had reason to smile even more broadly in the 10 miles free-for-all when he drove his fast Simplex four times around the 2½ miles course in the phenomenal time of 6:53.38—an average of 87.08 miles per hour. The former record was made by Bragg at the Indianapolis May meeting. With this introduction the crowd looked for Robertson to repeat in the five miles free-for-all, but a surprise and thrill was in store for them. Robertson went out in front and

for a lap—2½ miles—his Simplex responded masterly. Then Aitken swooped down upon him like a hungry hawk, and after a neck and neck battle that brought forth mighty huzzas the National cannonaded over the line a close winner. This really was the prettiest race of the meeting and Aitken was the hero of the minute. The summaries:

One mile record trials—Won by Burman, Buick. Time, 0:38.36.

Ten miles, 160 cubic inches—Won by Roberts, Herreshoff; second, Merz, Em-

third, Harroun, Marmon; fourth, A. Chevrolet, Buick. Time, 1:20:35.6.

#### Dawson's Triumph in the Cobe Cup Race.

Although there were other events on Monday's card, the transplanted 200-miles Cobe Trophy event easily held the attention of the holiday crowd to the exclusion of the other races. Not only was it one of the most exciting long-distance grinds ever held in this country, but it placed a new star in the automobile racing firmament, Joe Dawson by name. Dawson is a



"ACTION" IN THE MICHELIN TIRE CAMP AT INDIANAPOLIS

pire; third, Herreshoff, Herreshoff. Time, 10:36.30.

Ten miles, 161-230 cubic inches—Won by L. Chevrolet, Buick; second, Burman, Buick; third, H. Endicott, E-M-F. Time, 8:55.40.

Five miles, 231-300 cubic inches—Won by L. Chevrolet, Buick; second, Burman, Buick; third, Dawson, Marmon. Time, 4:08.03.

Ten miles, 301-450 cubic inches—Won by L. Chevrolet, Buick; second, Aitken, National; third, Dawson, Marmon. Time, 7:54.86.

Twenty miles, 451-600 cubic inches—Won by Grant, Alco; second, Greiner, National; third, Wilcox, National. Time, 16:27.13.

Ten miles handicap, free-for-all—Won by Robertson, Simplex; second, Smith, National; third, Ireland, Midland. Time, 6:53.48.

Ten miles amateur, free-for-all—Won by Greiner, National; second, Tousey, National; third, Wishart, Mercedes. Time, 8:16.56.

Five miles free-for-all—Won by Aitken, National; second, Robertson, Simplex; third, Hearne, Benz. Time, 3:39.7.

One hundred miles, 301-450 cubic inches, for Remy Grand Brassard—Won by Burman, Buick; second, Dawson, Marmon;

beardless Indianapolis youth, but his nerve and the speed of his Marmon car were sufficient to wrest victory from Burman and his Buick car in a spectacular battle that caused 20,000 persons to shout for joy when the home product emerged from the battle victorious.

Glory always means a deal of personal satisfaction, but Dawson derived more than that. Not only did he receive the backclaps and handshakes of his employers and Indianapolis friends, but his pocket was filled with the always useful coin of the realm. Besides winning the \$3,000 silver trophy, Dawson personally received \$500 from the Speedway management, \$300 because his car was fitted with a Bosch magneto and an additional \$400 for using Michelin tires, altogether a tidy sum for less than three hours' work.

The Cobe Trophy race, which was for cars between 451 and 600 cubic inches, attracted a field of 14 speed eaters. Burman rolled to the front at the 14th lap, and after 32½ miles he relinquished the lead to Arthur Chevrolet, but regained it later. Burman and Chevrolet then alternated in the lead for a long time. Grant, in the Alco car, was a prominent contender at the beginning of the race, but tire trouble destroyed his chance. After 115 miles had



been covered Dawson was bothered by tire trouble for the first and only time during the struggle. When he resumed the flight he was still third, in the rear of Burman and Chevrolet. Then Grant threw another tire directly in front of the grandstand and A. Chevrolet was compelled to stop with engine trouble and a leaky radiator, and Burman also lost a few minutes. Not until the 175th mile, however, did Burman lose his lead to Dawson, who thereafter was never headed. When the grimy-

Chevrolet, Roberts and Heineman also scored firsts in the events which were eclipsed by the Cobe Trophy race. The summaries:

Ten miles, 161-230 cubic inches—Won by L. Chevrolet, Buick; second, Burman, Buick; third, Endicott, E-M-F. Time, 8:12.2.

Five miles, 160 cubic inches—Won by Roberts, Herreshoff; second, Herreshoff, Herreshoff; third, McCormick, Herreshoff. Time, 5:22.8.

Five miles, 231-300 cubic inches—Won by

next. Cups will constitute the awards in the amateur event and cash prizes of \$100 and \$50 in each of the other races. The entry fee will be \$20 per car. A. R. Pardington, the vice-president and general manager of the Parkway, is in charge of the entry list. The admission fee on July 30th will be but 75 cents and there will be no charge for parking cars.

#### Licensing New York's Chauffeurs.

With a vigorous movement, which may be described as grasping the bull by the horns, Secretary of State Koenig has announced that in licensing chauffeurs under the terms of the new motor vehicle law, drivers' past performances will be taken into account; chauffeurs who are known to the police as reckless drivers, men who have been in many accidents as a result of their own carelessness, will be refused the necessary certificates and badges. This precaution, Secretary Koenig thinks, will go a long way toward inspiring a wholesome regard for the majesty of the law in the breasts of those to whom licenses are given. The law goes into effect on August first, and prior to that date examinations will be held in various cities to be designated within a few days.

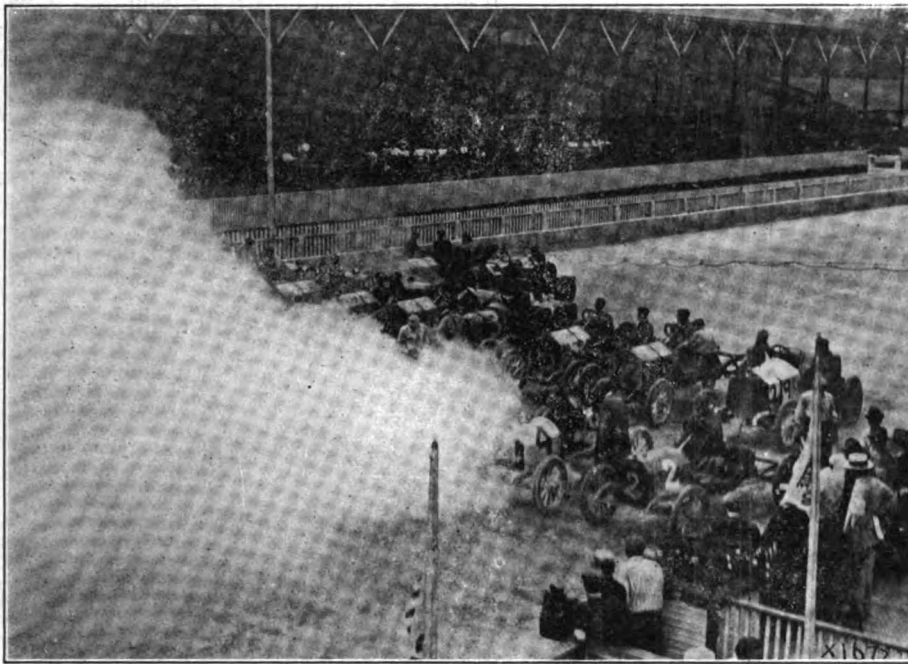
In connection with the administration of the new automobile bureau, it has been decided to open a branch office in New York City, which, it is announced, will be at the headquarters of the Touring Club of America and will be in charge of Secretary Frederick H. Elliott, of that institution. Spencer G. Prime, 2d, of Lake Placid, has been appointed chief of the bureau, with William Perry cashier. A number of the examiners already have been appointed; about half of them are professional politicians who apparently will draw pap from the crib.

#### "Guessability" Attracted Few New Yorkers.

New York did not take very kindly to the guessability game, the effort to introduce which was undertaken by the Touring Club of America, so-called. Despite enticing and conspicuous publicity which the event received in the daily press, only about 12 entries were received for the club's guessability-sociability run from New York to Waterbury, Conn., and return, which occurred July 2-4. The secret time schedule fixed was 785 minutes for the 200.8 miles, and those who guessed nearest to it and obtained the awards were, in order, J. H. Murphy, Premier; H. M. Moore, Brush, and E. C. Meurer, Premier. Murphy's guess was 40 minutes less than the schedule; the other two were more than an hour over the secret time.

#### New Dates for Long Island Reliability.

The Brooklyn Motor Vehicle Dealers' Association has postponed its reliability run from Brooklyn to Montauk Point, L. I., and return, to August 9-10. Originally it was fixed to occur July 19-20.



THE START OF A BIG FIELD—21 CARS

faced boy hurled his car across the tape in what was perhaps the most spectacular automobile race ever seen in the West he was almost mobbed. As he was borne aloft on the shoulders of his friends and hero-worshippers the stands rang with applause.

The race produced a grist of new records. A. Chevrolet covered the first 20 miles in 14:10.07, more than a minute better than Robertson's previous best, and Burman established a new record for 60 miles, when he was clocked in 50:16.00. A. Chevrolet made new marks for 70, 80, 90, 100 and 110 miles, respectively in 58:13.21, 1:06:14.06, 1:14:14.4, 1:22:10.09 and 1:30:00. Burman got the record for 120 miles in 1:37:54.1, as well as the 130 miles, in 1:45:50.3; the 140 miles, in 1:53:53.3; the 150 miles, in 2:01:54.2; the 160 miles, in 2:09:53.5; the 170 miles, in 2:19:07.8, and the 180 miles, in 2:26:51.6. Dawson established a record for 190 miles, in 2:35:17.9, and the 200 miles mark was reached in 2:43:20.13, lowering the record of 2:53:48.51, made by Disbrow at Atlanta.

One other record was broken on Monday, when Hearne won the 20 miles free-for-all in 14:08.22; the former record of 15:31.80 was made by Robertson at Atlanta. Wishart won the amateur race, and L.

Heineman, Falcar; second, Pearce, Falcar; third, Stinson, Black Crow. Time, 4:44.3.

Two hundred miles, 451-600 cubic inches, for Cobe Trophy—Won by Dawson, Marmon; second, Burman, Buick; third, Harroun, Marmon; fourth, A. Chevrolet, Buick. Time, 2:43:20.1.

Five miles free-for-all, amateur—Won by Wishart, Mercedes; second, Greiner, National; third, Tousey, National. Time, 4:21.34.

Twenty miles free-for-all—Won by Hearne, Benz; second, Aitken, National; third, Burman, Buick. Time, 14:08.72.

#### Amateur Event for Long Island Parkway.

For the first time, the Long Island Motor Parkway Co. has taken cognizance of the existence of amateurism and decided to assist in encouraging it. The encouragement will take the form of a ten-mile sweepstakes race on the parkway on July 30th. On the same day there also will be run a Clas C open event for cars from 301 to 600 cubic inches piston displacement without regard to weight limitation and also a free-for-all race, the conditions for both of which will be identical with those applying to the Vanderbilt cup race which will occur on the parkway on October 1st

## BLANKET FINISHES AT CHICAGO

Motor Cars "Make Good" in Three Days' Event, but Airships Refuse to Sail—Oldfield in Evidence.

The attempt of the Colonial Aero Club to promote a combination aviation-automobile-motorcycle meet at the Hawthorne mile dirt track near Chicago, Ill., on Saturday, Sunday and Monday last, July 2, 3 and 4, did not produce the good sport looked for.

The meeting started auspiciously on Saturday with a number of races that were interesting, and it was fortunate for the promoters that the automobile and motorcycle part of the program went along smoothly, for it is more than the airships did. A crowd of 10,000 people were in attendance and they had a chance to enthuse in 10 and 25 miles races, when blanket finishes prevailed. Oldfield and his big Benz were much in evidence, but he contented himself with a mile exhibition in 54 $\frac{3}{4}$  seconds. The 25 miles race—the feature—was won by Oldfield in his Knox.

The meet petered out on Sunday, and despite a large crowd no automobile races were held, although Oldfield and his stable mate, Kerscher, obliged with speed trials. Kerscher covered two miles in his Darraq in 1:56; Oldfield followed in 1:50 $\frac{3}{4}$ .

A record-breaking attendance of 25,000 persons were on hand Monday afternoon to see the aviators fly, but a strong breeze prevented any attempts in that direction. Oldfield negotiated the mile in 52 $\frac{1}{2}$  seconds and the two miles in 1:49. Kerscher drove three miles in 2:49 and turned a mile in 59 $\frac{3}{4}$  seconds. The first day's summaries:

Five miles, stock cars under 300 cubic inches—Won by J. Cheny, Staver; second, Monson, Marion; third, Gelnow, Staver. Time, 6:04 $\frac{1}{2}$ .

Ten miles, stock cars under 600 cubic inches—Won by Livingston, National; second, Clarke, Cutting; third, Edwards, Staver. Time, 11:33 $\frac{1}{2}$ .

Five miles free-for-all handicap—Won by Clarke, Cutting; second, Livingston, National; third, Sinsabaugh, Hupmobile. Time, 6:16.

Five miles free-for-all, amateur—Won by Seek, National; second, Schetnitz, Chalmers-Detroit; third, Richardson, Oldsmobile. Time, 5:55.

Twenty-five miles, stock cars 600 cubic inches—Won by Oldfield, Knox; second, Livingston, National; third, Monson, Marion. Time, 28:19.

### Explore Sahara with Automobiles.

Two automobiles, assisted by an aeroplane, are to make a thorough exploration of the Sahara desert, according to the plans of the Imperial Aero Club of Germany.

The motor cars will form a basis of operation for the flights of the aeroplane which will bear the brunt of the exploring work. Conditions in the territory immediately west of the Nile valley are to be studied in particular, although the expedition will penetrate as far as possible into the interior, far from the caravan paths. The sum of \$180,000 has been set aside to cover the cost of the exploration.

### Prize Winner with 10,000 Roses.

Of many impressively decorated automobiles which have graced parades in various parts of the country, few, if any, have been more strikingly beautiful than the Studebaker-Garford, which constituted exhibit D-44 in the annual Rose Festival parade



STUDEBAKER CARRYING ITS "BURDEN OF BLOOM" IN THE ROSE CARNIVAL

in Portland, Ore., last month. The accompanying illustration conveys an idea of the manner in which it was transformed into a huge floral gondola, but gives small idea of its real beauty. The entire car was hidden by some ten thousand roses, not to mention hundreds of ferns and grasses, nor the femininity which adorned the whole.

### P. S. C. Finds Most Crossings Dangerous.

In his report to the Public Service Commission of the State of New York, S. Percy Hooker, chairman of the State Highway Commission, states that a majority of the existing crossings of steam railroads are at such a degree of curvature that their crossing by automobiles at a reasonable speed is dangerous. The question came up when the Public Service Commission was asked to compel the Lehigh Valley Railroad Co. to modify its proposed crossing in the town of Farmington, Ontario county.

## MOTOR CAR AND CYCLE IN RELAY

Novel Combination Event in Spring Lake Gymkana and Race Meet—Cottage Colony in Competition.

The cottage colony of Spring Lake, N. J., was out in force to cheer local favorites in the events held on the Spring Lake County Club's half mile track on July 4th.

One of the interesting events was a half mile relay team race in which the first quarter was done in an automobile and the latter half on a bicycle. Arthur Osborne and Stickney Wells, respectively, on the car and bicycle, proved the winners over

Fred Swain and Tom Marseilles. Curley-haired Stickney worked harder than ever before in his life. The summaries:

Two mile scratch—Won by Harrington Sickel; second, Arthur Osborne. Time, 3:47.

Ladies' obstacle—Won by Miss Follmer; second, Mrs. Percival. Time, 1:35.

One-half mile automobile-bicycle relay—Won by Arthur Osborne and Stickney Wells; second, Fred Swain and Tom Marseilles. Time, 1:02.

One mile speed judging—Won by John P. Kane; second, Harrington Sickel. Time, 2:57.

One hundred yards high gear race—Won by Miss Follmer; second, H. J. Allen. Time, 0:15.

Ten miles scratch—Won by A. J. Sheehan; second, Stickney Wells. Time, 13:21.

Two miles novelty—Dead heat between Harrington Sickel and Arthur Osborne.

**FUN ON DENVER ENDURANCE RUN**

**Five Days' Contest Ameliorated by Cowboy Entertainments—Both Perfect Road-Score Cars are Penalized.**

C. W. Hulbert, driving a Rambler, and A. J. Hamilton, at the wheel of a Jackson, were the only two contestants who came through the Denver Post's 704 miles reliability run on June 28, 2, 30 and July 1 and 2, with perfect road scores. In the technical examination which followed, however, the Rambler was assessed 2 points for a loose wire, and the Jackson incurring heavier penalty for brake trouble, the award went to the former.

The contestants left Denver, Col., Tuesday morning, 28th ult., in the following order at one minute intervals: No. 1, H. D. Colburn, Renault; No. 2, James McDonald, Reo; No. 3, F. G. Gall, Studebaker; No. 5, Gordon Recort, Flanders 20; No. 6, E. W. Swanbrough, Hupmobile; No. 7, Herbert Porter, E-M-F; No. 8, R. A. Norton, Regal; No. 9, A. J. Hamilton, Jackson; No. 10, C. W. Hurlburt, Rambler; No. 11, T. A. Trinkle, Brush; No. 12, Edward Politz and Barney Cane, Haynes; No. 14, O. L. Patterson, Gleason; No. 15, E. H. Scott, Paige-Detroit; No. 16, A. T. Wilson, Firestone-Columbus; No. 17, F. R. Horton, Buick; No. 18, S. M. Newman, Paige-Detroit; T. Brinker, Apperson.

The noon control was at Greely, Col., and all the contestants made the journey without incident, Wilson and Gall arriving first. The citizens of Greely received the tourists enthusiastically, and while lunch was being served Mayor Houston made a speech of welcome. After luncheon the party proceeded to Cheyenne, Wyo., the first day's destination, and 115 miles from Denver. Cheyenne was not a bit behind Greely in extending the glad hand, and the funniest sight was to see the local band doing a sprint to reach the hotel where the tourists stopped, as several of the cars arrived ahead of time. The band played as well as possible under the circumstances, but the wind instrument performers could not join in the opening march until the fourth bar. The first penalizations for the first day were: Reo, 3 points; Flanders, 103; Hupmobile, 10; Regal, 10; Brush, 8; Gleason, 111; Paige-Detroit No. 15, 18; Firestone-Columbus, 49; Paige-Detroit No. 18, 13; Apperson, 3.

From Cheyenne back to Denver was the route followed on June 29th, and when the cars rolled into the Queen City late in the afternoon only six of the 17 competing cars retained clean records. The Gleason and Flanders cars withdrew, but continued as non-contestants. Penalizations for the second day were assessed as follows: Reo, 3 points; Hupmobile, 3; Regal, 3; Brush, 6;

Haynes, 3; Paige-Detroit No. 15, 14; Paige-Detroit No. 18, 1. The Gleason withdrew because it could not maintain the high speed demanded over the rough roads with its high wheels and solid tires. A burned clutch necessitated the Flanders' withdrawal.

The third day's journey was from Denver to LaJunta, a distance of 182 miles. Colorado Springs had only a fleeting glimpse of the tourists, but Pueblo turned out in force to greet the motorists and entertain them at luncheon. Rough roads were responsible for many penalizations, while the intense heat also caused many stops for water, also resulting in a loss of points. The only cars retaining perfect scores at the finish of the run were the Rambler, the Studebaker, the Jackson and the Buick. The Brush and Reo were withdrawn, but the latter continued as a non-contestant after having undergone necessary repairs.

Hugo, Col., was the destination on July 1, and a further elimination resulted in only the Rambler and Jackson cars retaining perfect scores. The Buick and the Studebaker both were penalized during the day, but no more cars were withdrawn. The cowboy town of Hugo also turned out to greet the tourists in an original and refreshing manner. After scraping some of the mud from their faces the endurance cars were led out to the open prairie, where the cowboys had prepared a feast which was eaten from tin plates, the guests sitting around a roaring bonfire. Then the mayor made a speech, following which the cowboy band, consisting of mouth organ, guitar, jewsharp and and "fiddle," played while other cowboys sang. There was one song about Moses leading the pilgrims across the Delaware and sackcloth frock coats, and another about a pretty young school teacher from Aurora, Ill., who took a trip to "Kalamazoo, France," and "some of them other seaport towns." After the punchers had entertained for a time with songs startlingly original, Judge Miles was prevailed upon to do a "hoe down," that was described as an exact imitation of the Mikado of Japan running for a crowded street car in the streets of Tokio. There was more singing and speechmaking, after which the tourists returned to town, only to find that in their absence the townspeople had decorated the main street from the hotel to the town hall with Japanese lanterns, and that a dance in their honor was about to begin. There was little sleep in Hugo, and the tired-eyed tourists left for Denver the following morning accompanied by a volley of au revoir pistol shots.

Thirteen cars finished in Denver Saturday afternoon, July 2nd, having made the run, of 106 miles from Hugo without incident other than becoming stuck in mud holes and a jouncing over rutted roads. After the arrival in Denver the cars were turned over to the technical committee for

examination before the announcement of results.

**Elections of Club Officers.**

Nortonville (Kan.) Automobile Club—President, B. L. McBride; secretary, P. B. Brunstetter; treasurer, Claude McCarthy.

Walsenburg Auto Club, Walsenburg, Colo.—President, J. B. Johnson; vice-president, Fred O. Roof; secretary, Fred C. Sporleder; treasurer, James B. Dick.

Denson County Good Roads Club, Minnewaukan, N. D.—President, A. E. Hutchinson; vice-president, John O. Schulze; secretary, C. A. Ness; treasurer, George Dickinson.

Pensacola (Fla.) Auto Club—President, Dr. Louis de M. Blocker; vice-president, L. Hilton Green; secretary and treasurer, Fred W. Marsh. Directors: George P. Wentworth and Henry Hyer.

Newport (Vt.) Automobile Club—President, Dr. Harry F. Hamilton; vice-president, O. C. Miller; secretary and treasurer, D. N. Dwinell. Executive committee: J. F. Lambert, G. D. Pratt and J. R. Kirkpatrick.

**Kincaid Killed in a Practice Spin.**

Thomas A. Kincaid, one of America's crack drivers, was instantly killed at the Indianapolis Motor Speedway yesterday, 6th inst., when his car left the track on the backstretch. No one witnessed the accident. Kincaid in company with Aitken, his racing partner, were tuning their cars at the Speedway and the latter had just finished when the accident occurred. When Kincaid did not appear on the next lap a search was instituted. He was found under the overturned car, and death is believed to have been instantaneous. Although only 20 years of age, Kincaid had made a national reputation as a driver for the National Motor Vehicle Co., of Indianapolis. His last appearance in competition was on the Indianapolis Speedway July 4th.

**Gave Kerosene its Present Name.**

One Abraham Gesner, of Williamsburg, N. Y., is credited with the invention of the word "kerosene" in connection with his application for a patent covering his alleged discovery of "a new liquid hydrocarbon." Gesner's patent was granted on March 27, 1855, and assigned to the North American Kerosene Gas Light Co. Prior to that time, the equivalent product had been known as "rock oil", so that, although it is not generally known, the kerosene of commerce owes its name to the creation of a trade mark or brand.

**Motordrome First Provides for Aeroplanes.**

Work on the projected Philadelphia motordrome at Clementon, N. J., actually has begun, not on the track, however, but on the sheds in which aeroplanes will be stored. The automobile track, it now is stated, will not be ready until next year.

## GASOLENE PROBABLY WILL GO UP

**Standard Oil's Publicity Man Answers Pertinent Questions—Discusses Possibilities of Alcohol and Kerosene.**

Although reports and predictions of a "gasolene famine" and of the raising of the price of the fuel by the Standard Oil Co., and other oil concerns, have been going the round of the press for a year or more, authoritative statements from those high in authority and competent to speak have been lacking. When, however, a Motor World man called at 26 Broadway, J. I. C. Clarke, the Standard Oil's publicity manager, freely discussed the whole subject of gasolene production and supply, and answered the questions put to him unservedly.

"What is the present state of the supply of gasolene?" asked the Motor World representative. "Persistent reports in the daily papers state that it is in danger of becoming exhausted."

"Although I cannot give you exact figures at this instant," replied Mr. Clarke; "I am inclined to believe that the supply hardly will be equal to the enormous demand. It certainly will not exceed it to any great extent."

"Will the reduced supply—or the increased demand—have any influence upon the price at which it is sold at retail? One of the more important daily papers mentions 25 cents a gallon as a possible price in the near future. Is there any foundation for this report?"

"Undoubtedly the increased demand will have an influence in raising the price. However, the rise will be only a small one, perhaps as much as two cents a gallon, but it certainly will not reach the extravagant figures of 24 or 25 cents a gallon."

"Will the heavy demand have any influence upon the quality of gasolene manufactured?"

"Will you state exactly, in degrees of specific gravity, what you consider quality?"

"Say, the specific gravity of the gasolene generally sold at retail in the garages of this country—will it ever drop as low as 64 degrees?"

"I can safely say that it will not. As you know gasolene is obtained by distillation. In the distillation we obtain fluids of 80 degrees, 78 degrees, of 76 degrees, and so forth—some of it as low even as 64 degrees and 62 degrees. It, of course, remains to be seen whether or not gasolene of 64 degrees is suitable for use in automobile engines. If it is unfit for such use, it manifestly would be foolish for us to manufacture it."

"What is the present state of the petroleum supply?"

## THE MOTOR WORLD

"The question is too vague. Oil fields are being discovered all the time and the supply of raw oil is considerably above the demand, so greatly in fact, as to induce some oil well owners to propose building large power houses at the mouth of the wells, using the crude oil as fuel in turning dynamos, and then selling the electricity created by these engines to the whole countryside, and even to more distant cities. Such projects are being talked of on the Pacific coast, and I mention them because they show the abundance of the crude oil. It is not in the scarcity of the crude petroleum that the high price scare finds its semblance of truth, but in the difficulty of providing sufficient facilities for handling the crude oil and distilling it."

"Are there any other sources of gasolene besides the crude oil wells?"

"O, yes! A great deal of gasolene is being manufactured at present from natural gas, and this source will be still further utilized in the near future."

"How does the Standard Oil Co. look upon the efforts being made to substitute alcohol for gasolene?"

"There hardly can be any question of substitution. At present alcohol is not fit to take the place of gasolene, but this company would be only too glad to see alcohol produced in large quantities for industrial usage. It would simplify the gasolene problem considerably, as it would become a kind of supplementary fuel, if the gasolene supply should fall below the demand."

"If the manufacture of alcohol should make great steps in advance and become a commercial success, so as to be sold as low as gasolene—considering the lower heating value of alcohol—would the Standard Oil Co. enter the field as alcohol manufacturer?"

"I doubt that very much. The company has fully enough to do with oil and gasolene and all that pertains to it, to bother about manufacturing alcohol. No, I think we will leave that to others."

"Are there any other fuel supplies in sight which might replace gasolene?"

"Well, yes! I look to an improvement in the hydro-carbon explosive engine, which will permit of crude kerosene being used in the cylinders. It is only a question of providing some kind of arrangement by which the cylinders will be cleaned after each explosion. The residue is the only troublesome thing about it."

### Truck Contest in A. C. A.'s Hands.

A handful of New York tradesmen who have been carefully nursing a projected motor truck reliability contest for some weeks, having watched it peacefully go to sleep, have turned the infant over to the Automobile Club of America, which body has signified its willingness to be mentioned as a possible sponsor for such an affair at some future time, probably in the fall. The press agents of the three manu-

facturers, whose "entries" had constituted the corporeal portion of the infant, still are active in expressing the eagerness of the same producers to assist in christening the infant at any time it can be roused from its slumbers.

### Red Cross Society Calls a Halt.

Although not generally known, it seems that the right to carry the red cross of the well known design is vested in the Red Cross Society, and that this society is endeavoring to prevent any unauthorized persons, such as practising physicians, from using the insignia on the radiators of their automobiles, which on occasion has served as a good bluff when policemen were encountered. In Baltimore physicians have been given permission by the city authorities to carry red crosses on the radiators of their cars, the display of this sign assuring a free road to the driver of a car, the same as if it were an ambulance, or fire patrol. Complaints which the Red Cross Society has received show, however, that the privilege has been abused, and in order to stop further abuse of this kind the society is calling attention to the fact that the red cross on white background is a copyrighted design, belonging to the society, and that infringers or unauthorized users of it are liable to prosecution.

### Gets Ten Years for "Borrowing" a Car.

Joy riding and the "borrowing" of automobiles are likely to become exceedingly unpopular in Denver, Col., as a result of the sentence imposed by Judge Riddle on Wallace Powers, convicted of entering the garage of Dr. G. K. Olmsted and taking the machine out for a spin and abandoning it afterward. The judge did not take the prisoner's view of his act, and declined to call it anything else but plain and ordinary burglary, sentencing the accused to the penitentiary for a term of from five to ten years. The Denver Motor Club paid a reward of \$100 to the officer making the arrest, and has made a standing offer of a like amount for any policeman who arrests and convicts any one stealing a machine from a member.

### Big Verdict for Motor Bus Accident.

One of the largest verdicts ever allowed in New York county for the loss of a limb has been returned against the Fifth Avenue Coach Co., of New York City, which operates the automobile bus line on Fifth avenue. Alice Philpot, a waitress, 28 years old, has been awarded \$17,500 by a jury before Justice Gavegan in the Supreme Court for the loss of her right leg. While Miss Philpot was standing at 49th street and Fifth avenue, on September 24, 1908, one of the company's heavy motor propelled buses skidded, the rear end of the vehicle striking the woman and causing such injuries that amputation was necessary.



**BOSCH HAS A NEW DUAL MAGNETO**

**Modified "DU4" Type Affords Self-Starting for Small Cars—Two Systems Designed to Operate Independently.**

Indicating a growing demand for the method of dual ignition, the Bosch Magneto Co., New York City, just has brought out a new instrument of this type which is applicable especially to machines of medium

reserve current in the remote event of the inability of the magneto itself to produce a sparking current.

The accompanying illustration shows the newly developed magneto, which closely resembles the regular "DU4" type, save for an additional binding post on the face of the distributor. This binding post serves to carry the high tension current from the switch to the distributor, whether the current originates in the magneto or in the coil. In the independent magneto

"stepped-up" in the coil. In either case the spark at the plugs occurs simultaneously with the interruption of the primary circuit.

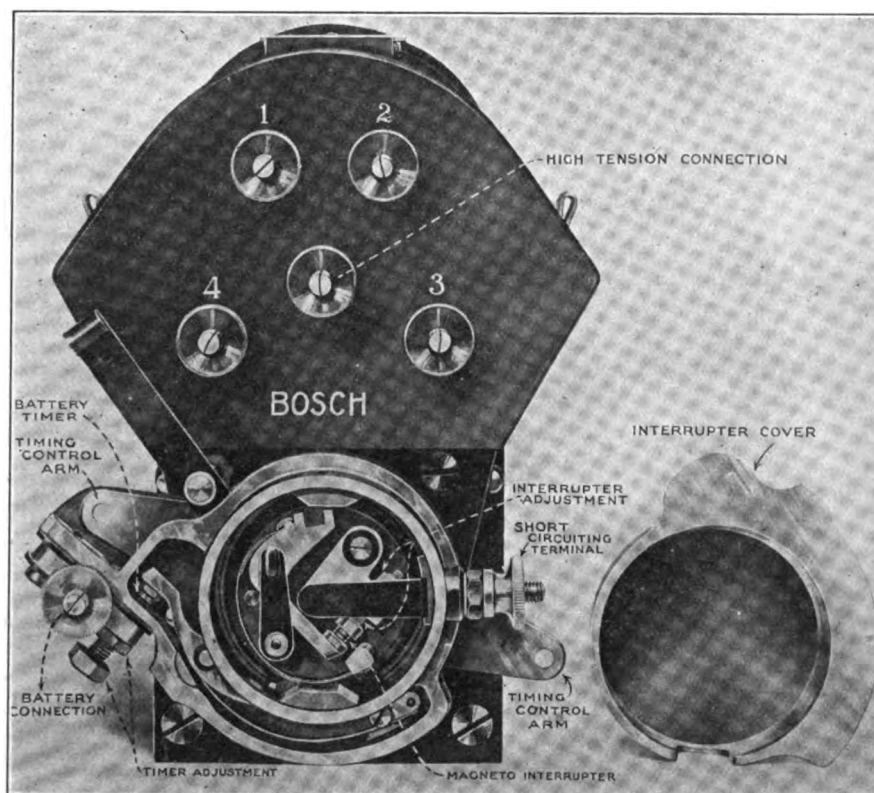
The coil which is auxiliary to this form of magneto is of the horizontal type, designed to be mounted on the dash with its front plate set flush, or nearly so, with the dash. The end plate is capable of partial rotation and thus serves the purpose of a switch. It is of such construction that it may be actuated either by hand or with the foot, and it is provided with an individual key lock. As the coil is mounted on the end plate and journaled in its casing, the rotation of the switch plate serves to rotate the coil, thus establishing the necessary contacts in a very simple way.

Ordinarily the battery spark results from a single interruption of the primary current at the battery timer on the magneto. In order to secure the desired effect for starting purposes, however, the coil structure is supplied with a vibrator, which is thrown into action when a little button, located in the center of the switch end plate is depressed. In most instances a four cylinder engine will tend to stop with its pistons balanced on compression and therefore, with one cylinder on its firing stroke with its piston half way down the cylinder and another on the compression stroke, with its piston half way up. Under such circumstances, the battery timer on the magneto will be open but the distributor will be making connection with the proper cylinder to fire. Occasionally, however, it may happen that the battery timer circuit will be closed, in which case the vibrator will not act. As provision against such a contingency the push button is provided with a double movement. Light pressure merely makes contact with the vibrator and permits the primary current to be broken in case the timer circuit is open. In case it is closed, heavier pressure upon the starting button forces it in to a second position where it has the effect of breaking the circuit through the timer for the time being.

It will be observed that the device ensures absolute independence of the two systems and renders them entirely interchangeable in service, so long as the magneto armature and distributor mechanisms are in order. The battery system thus constitutes an efficient standby in case of accident, as well as fulfilling an important purpose as a starting medium.

**Inspecting the Brake Linkage.**

In some types of shaft driven car the brake linkage is placed so low that there is some danger of bending the rods when running through deeply rutted roads or over rough country. As the effect of this would be to alter the adjustment, possibly causing one of the brakes to bind, the linkage should be inspected immediately after a serious bump has been encountered.



NEW BOSCH "DU4" DUAL MAGNETO SHOWING INTERRUPTER

and low power. Although to the layman a magneto is just a magneto in most instances, the result of close specialization in ignition matters by the Bosch company, has resulted in the development of more than 150 different types and designs of magneto device, each of which is intended for specific application to one or another sort of service. The new system is an adaptation to the dual principle of the so-called "DU4" type, which is an instrument intended for installation upon cars of small power and more or less restricted price.

Of the true dual form, and built for service through a single set of spark plugs, the system is intended particularly to offer to the user of the small car the advantages of magneto ignition together with the much desired additional feature of self-starting. In other words, when the cylinders properly are charged with gas, the engine may be set in motion merely by touching a push-button mounted in the center of the dashboard starting coil. Although the system is contrived with this basic idea, it also is possible to employ the battery as a source of

of the same general style, the secondary current is led directly from the armature to the distributor through an internal connection. In order to break this connection and furnish means of making contact through the coil when the battery is in use the extra terminal is required.

Another addition to the standard form is the battery contact maker, which is necessary in order to develop the inductive effect in the coil when the armature is out of electrical action. The contact maker is shown in the illustration directly beneath the regular magneto interrupter. Unlike the magneto interrupter, however, it does not revolve with the armature, but is stationary and mounted on the base in such a way that the interruption of the battery current, following the closing of the circuit by the contact maker an instant before, occurs at precisely the same instant as the interruption of the armature circuit in the magneto. In other words, the timing action of the magneto is exactly the same whether the current is induced in the instrument or derived from the battery and

## WHEREIN COMMERCIALS SUFFER

Disappointment Arising From Unprecedented Situation and Unfair Comparisons—  
Influence of Pleasure Cars.

While the commercial branch of the industry is advancing by leaps and bounds and rapidly is assuming most encouraging proportions, it is an open secret that some manufacturers find it extremely difficult to realize in practice the results which they have been led to expect. Similarly many motor truck users are finding their operating costs mounting up at an amazing rate and, to all appearances, threatening to become prohibitive. In the estimation of a close student of the industry, this is a condition which should be expected from the very novelty of the commercial automobile in the business world. Branding it as a "logical stage of development," he explains his theory that any dissatisfaction with the present service of the motor truck is due to a lack of adjustment of values rather than to any shortcomings on the part of the machine or any laxity on the part of its makers.

"Although the commercial end of the business is developing wonderfully, while new demands constantly are arising and in many quarters remarkable results are being achieved, there is still a certain amount of discontent to be found," as he observes. "New machines often fail to come up to the expectations of their owners, and, on the other hand, manufacturers and distributors bemoan the fact that their customers' demands are unreasonable, perhaps utterly beyond their own or anyone else's powers of fulfillment.

"The underlying cause of discontent is twofold. Mainly it is due to a lack of means for adjusting values on an equitable basis. The other element of difficulty is that the expectations of both producer and consumer have been raised to an exorbitant level. From the beginning of modern civilization the horse has been a necessity, often a household necessity. The cost and value of its service seldom has been calculated in exact terms, frequently it has been as incalculable as the cost of chickens, babies, potatoes or any other domestic yield. In business service it has been much the same as on the farm; while accounts have been balanced in dollars and cents, and all other elements of expenditure equated against return either in money or on some other uniform basis, primary transportation has been overlooked as a factor to be juggled with in accountancy, and minimized or disguised more or less unsatisfactorily in a maze of figures.

"So the advent of the commercial motor vehicle introduces the mere machine, which is bred of a close-figuring era, to a system

which is lacking in the very units by which its value must be measured. Under certain conditions one motor vehicle will replace three-horse drawn wagons in point of merchandise movement; but when it comes to contrasting the costs, only in rare instances is there any dependable figure to balance the new expenditure against. In the exceptional cases, mainly those of large corporations, it generally happens that satisfaction is expressed with the work of the mechanical equipment.

"In a way the influence of the pleasure car upon the commercial end of the industry, but more especially of the market, is more or less unwholesome. The customer is apt to expect the same sort of reliability from his truck that he gets from his roadster, and despite greater abuse and less care, he forgets that it is the product of a new study, that it works under totally different conditions, and he even grudges it the outlay for upkeep which his personal car is given unquestioningly. The producer, on the other hand, is still struggling to get away from the conventions of the lighter high speed product, and is only just beginning to realize how very near the ground he must begin in order to build just what he aims to build.

"One element of particular discouragement to both sides of the field is that the consumer frequently becomes imbued with the idea that his requirements are largely peculiar to himself—that his need can be satisfied only with a special vehicle. The producer, mindful of the importance of standardizing his product, is even more eager to convince him of the utility of the stock chassis. This very fact is proving a bugbear to some manufacturers, for the simple reason that it prevents the business from being shaken down into well-ordered and profitable lines. Others, on the contrary, find it more to their liking to build to special requirement than to work along stock lines. Still others are pursuing a non-committal course, and producing special cars only when directly called upon to do so by those whose patronage is particularly sought or is particularly desirable.

"The essential point is that neither on the side of supply nor of demand have conditions been reduced to a systematic basis. Such a state of affairs is rapidly approaching, and already even exists in the few instances of manufacturers who have become conspicuously successful in this line. But for the most part the commercial vehicle industry is just at that trying point where a good demonstration having been given, it is necessary to teach the customer how to employ the goods to the best advantage. It is the stage at which the salesman requires all his fortitude and a good share of that fleeting quality known as optimism. But it is a logical stage of development and one which is rendered critical only when the salesman loses his courage or otherwise fails to carry conviction, which in theory at least no good salesman ever does."

## PAINTS THAT DO NOT PRESERVE

Expert Points Out Some Pigments Actually Injure Metal—Wreck of Battleship  
Maine Holds a Good Lesson.

That carelessness in the selection of the materials for the priming coat of paint applied to motor cars may lead the hasty or negligent manufacturer or repairman into difficulties, is the obvious conclusion to be drawn from the remarks of an expert in the preservation of metals from the effects of corrosion. Far from exercising the preserving influence which commonly has been attributed to all pigments by the layman, and by the ordinary mechanic as well, it has been learned that certain classes of paint not only fail to protect the metal in the way of preventing the entrance of air and moisture into the pores of the underlying surfaces, but in themselves cause destructive chemical action.

In a lecture recently delivered before the Cleveland Engineering Society, Maximilian Toch, of New York, gave the results of some of his investigations into the subject of corrosion and the effects of paint and concrete in preventing it. Some paints, he declared, actually produce rust, instead of preventing it, and in this class he placed carbon paints. Incidentally, referring to the preserving effects of paints used on various portions of the battleship Maine, which now lies wrecked in the bottom of Havana harbor, he explained that one class of covering had proved much more effective than any of the others. From the Navy department at Washington, he said he had learned that this was a mixture of Venetian red, white lead, zinc and ochre. Incidentally, he showed that the effects of surrounding chemical substances upon the paint itself must be studied in determining the qualities to be sought in a pigment which is intended solely for the purpose of preventing the decay of the metals which it overlies.

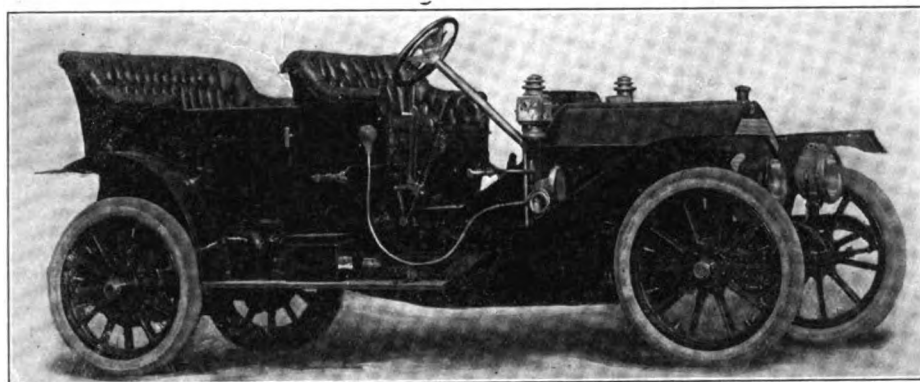
### Trouble Indicated by Oil Drainings.

Whenever the oil has been drained from the engine base it is wise to scrutinize it carefully to make sure that no abrasion is taking place in the bearings. If excessive wear or cutting action is occurring, it may be detected by the "feel" and appearance of the oil when rubbed gently between the finger tips. Under such circumstances the fine metallic particles may be detected very readily; while if bronze bushings are used the abraded metal will impart to the oil a characteristic bronze color which is unmistakable. Unless the rejected oil is reasonably free from dirt other than carbon, it is a good plan to make a thorough inspection of all bearings for play, thus locating the difficulty before damage is done.

## TWO NEW P-S MODELS ANNOUNCED

"4-50" and "6-40" Sizes Constitute the Additions—Four Varied Chassis Types Comprise New Line.

By the addition of two new models to the line, the inclusive product of the Palmer & Singer Mfg. Co., New York City, is brought up to four chassis, which, in range of power, style of construction and nature of body equipment, is made to assume most complete proportions. Two of the models are driven by six cylinder mo-



PALMER-SINGER NEW 6-40 TOURING CAR

tors and two by fours. The newest members of the series, which just has been announced in revised form, are a six and a four, respectively. In many respects the complete line is uniform in design. The construction of the engines varies somewhat, however, and it is evident that each chassis has been designed with a view to the scope for which it is intended rather than with an eye to fitting it into a uniform series of vehicles differing from one another only in point of size, power and price. Thus in the case of the new light six cylinder car, a different arrangement of the engine is employed from that which obtains with the 6-60 model. The object is to gain as great an amount of body room as possible; to this end the motor has been fashioned in an extremely compact manner.

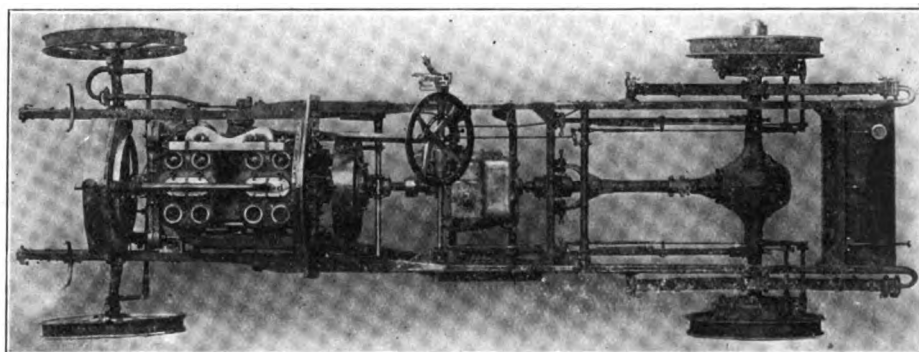
The complete roster includes the "Six-Sixty," "Four-Fifty," "Six-Forty" and "Four-Thirty" chassis models. Needless to say, the range of body designs affords great amplification of this basis and renders the line exceedingly varied. The three larger models, of course, are standard in touring form; the thirty horsepower model, while obtainable as a touring car, is particularly well suited to the purposes of the so-called town car. The cylinder dimensions of the respective models, in the order named, are  $4\frac{7}{8}$  by  $5\frac{1}{2}$  inches, bore and stroke;  $5\frac{1}{2}$  by  $5\frac{1}{4}$ , 4 by  $4\frac{3}{4}$ , and 4 by  $4\frac{3}{4}$  inches. The wheel bases, in the same order, are 138, 129, 125 and 120 inches, respectively.

On the large motor, which is said to de-

velop no less than 71 horsepower on the bench, the cylinders are cast in pairs with extremely large valves mounted on opposite sides. To ensure uniformity and good wearing qualities, it is the practice to cast the cylinders, pistons and ring pots from the same metal and at the same pouring. By this means absolute uniformity of expansion is made practically certain. The valves are mounted on opposite sides of the cylinders and are extremely large. The valve lifts are provided with fiber inserts to prevent clattering, the springs are centered and fastened to the valve stems by special spring cups, and the lifts are rendered adjustable by means of set screws which are

mounted on the lower ends of the valve stems.

Further refinement is embodied in the timing gears, which depart from ordinary construction in that they are of unusually wide face and are



PALMER-SINGER NEW 4-50 TOURING CHASSIS

mounted on steel spiders. They run in an independent oil-tight housing and are lubricated by special feeds from the central oiling system. The crank shaft is of hand-forged alloy steel, heat treated and polished. It is supported on large bearings. The connecting rods are heat treated alloy steel drop forgings and are fitted with a babbitt bearing on the crank shaft and a bronze bushing on the wrist pin.

The water circulating pump is driven from the exhaust shaft through bevel gears; this shaft also is provided with a special compression releasing device, which is used for starting purposes. The commutator for

the double ignition system, the magneto and the oil pump are driven by a divided shaft actuated through bevel gears from the intake cam shaft. The magneto driving gear is provided with a universal adjustable coupling, which is so contrived as to permit regulation without removing the gear case cover. Further provision is made so that the water and oil circulating pumps can be inspected and adjusted or removed from the motor without disturbing the timing gear casing.

As is customary, the lower section of the crank case is made in such a way that it can be dropped without disturbing the crank shaft bearings in any way. The base is cast of aluminum of high tensile strength. The motor is hung from the main frame by means of four arms cast integrally with the upper portion of the case.

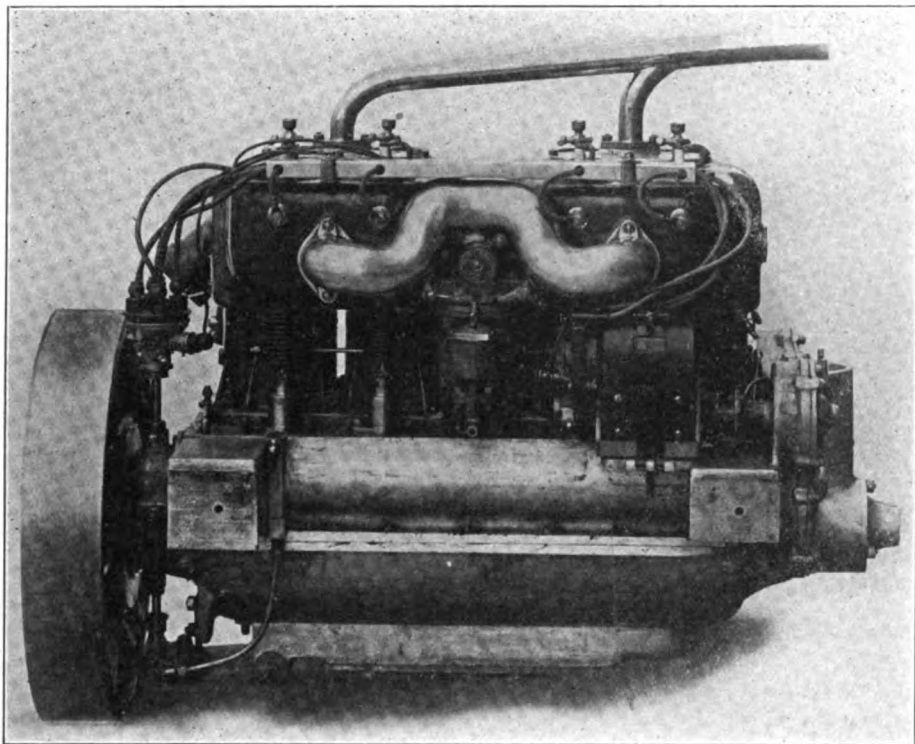
The oiling system for the motor is a little out of the ordinary in that it affords means for lubricating the cylinders directly. The source of supply is the gear pump, which raises the lubricant from the reservoir, which runs the entire length of the crank case, and feeds it through special ducts formed integrally with the crank case to the crank shaft bearings and the cam shafts. In addition to the independent feed to the timing gears, another lead carries a portion of the supply to the sight feed glass, which is located on the dash; from which point it is fed to the cylinders through a pet cock by which the amount of flow can be regulated at will. The crank case is separated into compartments by integrally cast webs, the compartments also serving as settling pans for the overflow

oil, which is drained off from the rear end of the crank case to the sump below. The connecting rod caps dip into the individual reservoirs beneath the cylinders and the splash thus formed serves the bearings with oil. A sight feed glass is mounted on the outside of the crank case on the left hand side of the motor, thus enabling the level to be ascertained at any time.

The carburetter employed is the special form of multiple jet device which is a Palmer & Singer invention and which was described in detail in these columns recently. It combines with the multiple jet features an ingenious throttle linkage

whereby the poppet valves which close the intermediate and high speed Venturi tubes are held to their seats by mechanical means except when the throttle damper is partially or completely opened. Thus, should the car be bounced severely while running on a nearly closed throttle there would be no danger of upsetting the carburation in consequence of disturbance to the valves.

the two remaining models it is housed in a special compartment of the gear box. The change gear system is of the sliding pinion selective pattern, affording four forward speeds with direct drive on the fourth, as applied to the "Six-Sixty" and "Four-Fifty" models. In the two smaller models the direct drive, or normal running speed, is on the third ratio.



PALMER-SINGER NEW 50 HORSEPOWER FOUR CYLINDER MOTOR

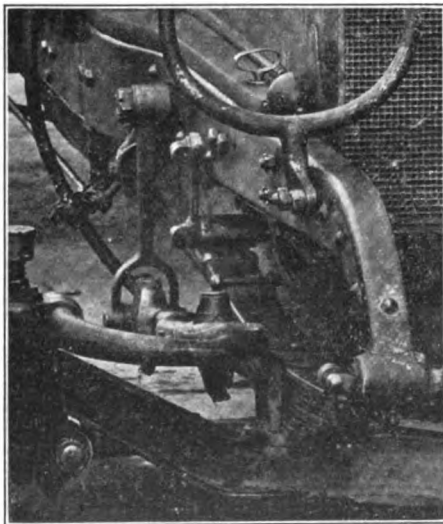
When the motor is running at half speed or full speed, the suction is sufficiently strong to overcome any possible inertia effect in the valves.

The motors employed on the three smaller chassis differ from the large motor in respect to their cylinder dimensions and also in the following points: In the new six-cylinder motor, the cylinders are cast in groups of three, instead of in pairs, while an annular ball bearing is used on the forward end of the crank shaft, instead of a plain bushed bearing. In the 30 horsepower, four cylinder motor, the valves are mounted on the same side, and therefore but a single cam shaft is employed.

All of the motors have been designed for high tension dual ignition with independent sets of spark plugs, both of which uniformly are located on the inlet side of the motor. The magneto equipment is a Bosch product. A battery high tension distributor is provided as well as a vibrator coil which is mounted on the dash. It is possible to use the systems interchangeably or simultaneously.

In all models the master clutch used is of the multiple disc pattern with 47 saw-steel elements. In the two larger models the clutch is encased in the flywheel; in

Final transmission universally is by cardan shaft. Two universals are employed, one at either end of the gear box. The pro-



HEAVY STEERING LINKAGE

PELLER shaft is enclosed in a torsion tube, which forms a solid housing with the differential casing on the live rear axle. The latter is trussed for strength and pro-

vided with a large inspection plate through which easy access may be had to the differential and driving mechanism. Double, internal expanding and external contracting, brakes are employed.

Except on the town car model, all chassis are mounted on 36 inch wheels. The wheels are roller bearing mounted on the larger cars, but run on ball bearings on the smaller chassis. Semi-elliptic springs likewise are employed on all except the smallest chassis; that is mounted on three-quarter elliptic suspension in the rear. The frames of the larger models are trussed underneath and reinforced in front. The smallest of the quartet is supplied with a drop frame suitable for the low-hung body structures which it is intended to carry. On all models steering is by a worm and nut device, which is encased in a bronze housing. The steering linkage is minus the familiar ball and socket connections but is furnished with double yoke couplings liberally supplied with grease cups. The front connecting rod is carried back of the axle.

#### Invents Puncture-Proof for Tires.

For puncture-proofing purposes an English inventor has devised a tube protector which is adaptable to any tire of ordinary construction. The protector takes the form of an inextensible canvass liner, which is placed over the tube before inflation and which contains a supposedly non-puncturable filler embedded over the tread portion. At the sides, the protector tapers off to a feather edge near the rim. The object is to equalize the pressure on the inner tube and to cause a low pressure on the tread. Under test, it is said that one of the protectors was run for 500 miles in a shoe which had been gashed down to the resistant material without yielding in any way, even though highway conditions encountered were such as to cause three other tires on the same car, which were of normal construction, to fail at one time or another.

#### Gabriel Produces a Four-Tone Horn.

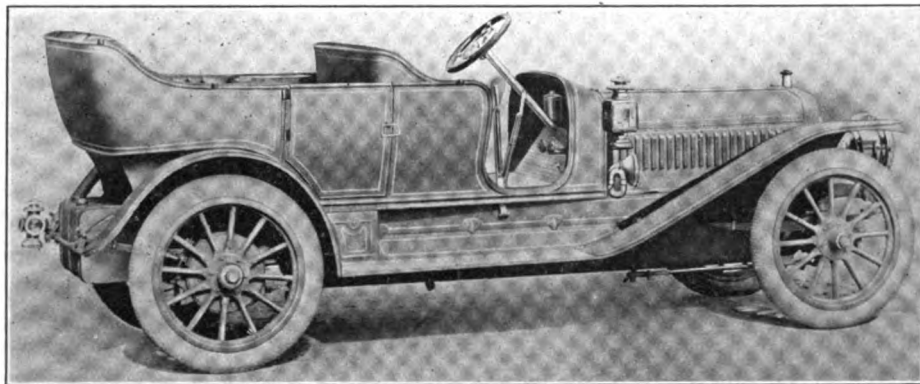
No little marvelling was indulged in by the uninitiated when the first single tube, three-tone Gabriel horns appeared as a new type in the line produced by the Gabriel Horn Mfg. Co., of Cleveland, O., but for 1911 the company is going even further and is bringing out a type of exhaust horn that while being but a single tube, has four notes, or one more than any single tube horn the company hitherto has made. The new model is styled the No. 4 four-tone horn, and sells for \$35 in the regular polished brass finish, or \$1 additional for any special finish, such as oxidized, black lacquer or nickel plate. The size is 3 x 32 inches, permitting convenient attachment, and the horn is designed especially to withstand high exhaust pressure, so that it is suitable for high powered cars. All of the present models will be continued, despite the addition of the No. 4 to the line.



**HOLDS TO SIX CYLINDER POLICY**

**Winton will Continue in Making no Other Type—Modifications and Refinements—Specifications of 1911 Chassis.**

Evidently standing solid in the conviction that "it is a good thing to know when to let well enough alone," the Winton Motor Carriage Co., Cleveland, O., has announced the continuance of the exclusively six-cylinder policy which it has been encouraged to maintain for several years, and also the continuance with minor changes only of the Winton Six car, a model which, upon July deliveries, passes into its fourth



LATEST MODEL WINTON SIX WITH NEW STYLE TOURING BODY

year. As in the past, the car will be offered with a variety of body options. The standard form is the seven passenger car. In addition, there is a complete line of limousine, landaulet, small tonneau, torpedo and roadster bodies.

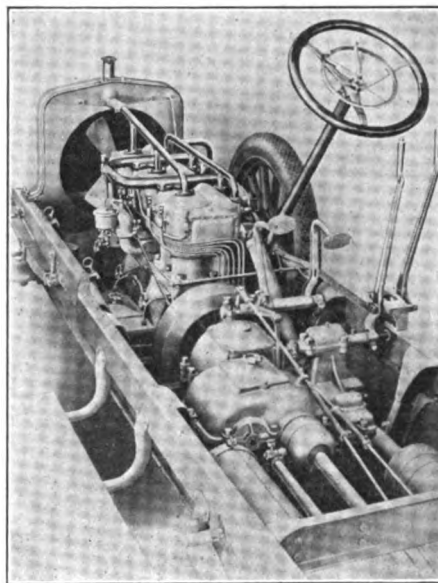
In preparation for the production of a new series of the car, naturally, certain alterations have been brought about, most of them being not only of a minor nature but inconspicuous in their effect on the general appearance of the machine. In the case of the standard body, even, the alterations, while apparent and significant in bringing the car into line with the most recent trends of body delineation, still are not sufficient to impair its identity with former products of the same line. While the general body outline is much the same as in the current model, a little more of the dustless, straight-sided effect has been obtained by substituting sweeping panels for abrupt angles and considerably reducing the amount of raised moulding. Thus the new front seat has no overhang, the sides of the rear seat are brought down to the level of the rail in a smooth curve, and the dustless effect which is so much desired just now is materially assisted by the use of a deep skuttle dash.

Most significant among the mechanical features of the machine is the continued application of the self-starting device, which eliminates the necessity of cranking and permits the starting handle to be carried in

the tool box as reserve equipment. The starting mechanism consists of a single rotary distributor valve, which automatically selects the cylinder next in order of firing, when it is desired to start the motor, and directs into it a charge of compressed exhaust vapor which is held in a storage reservoir at sufficient pressure to move the engine. As soon as the first piston has been forced over the ignition point the charge of gas in that cylinder, which has been left over from previous running, is fired and the motor is set in operation. If the first cylinder happens not to contain a charge of combustible vapor, the motor is revolved by direct thrust and expansion of the starting charge until a fresh volume of gas has been drawn from the carburetter.

Thereafter the engine takes up its regular cycle automatically.

The cylinder dimensions are  $4\frac{1}{2}$  by 5 inches, and the cylinders are cast in pairs and offset from the crank shaft to reduce engine friction. As both sets of valves are mounted on one side, only a single cam



VIEW OF POWER PLANT

shaft is required, and the neat appearance and general cleanliness of the motor further is enhanced by the application of re-

movable cover plates to the cases which house the valve springs and lifters. The magneto and circulating pump are located on the same side—the right, but the carburetter is placed on the left side. In common with a majority of the equipment, this is entirely a Winton product. As heretofore, it has a single jet, but double throttle arrangement. Ignition is by the Bosch dual system, with a single set of plugs and a dash-mounted coil which carries a vibrator to be used for starting purposes.

Transmission is carried out by means of a multiple disc clutch, selective sliding pinion change gear and propeller shaft to the full floating rear axle. The clutch and change gear are mounted in a unit housing carried on the frame independently of the engine. The clutch is made up of 67 saw-steel elements revolving in oil. The change gear affords four forward speeds in addition to the reverse, with direct drive on the third, or normal running speed. The fourth speed is geared above engine speed. Both the clutch and change gear run on annular ball bearings. The front and rear wheels, on the other hand, and the live portion of the rear axle, are mounted on Timken roller bearings.

Semi-elliptical springs are employed both in front and in the rear. In the rear, the frame is raised by a substantial amount to permit low suspension of the body without impairing the necessary axle clearance. In front the frame is narrowed to provide a wide steering lock. The wheel base is 124 inches; the wheels are 36 inches in diameter, both front and rear. As in the past, the chassis is obtainable with a variety of gear ratios, thus rendering it adaptable to a variety of highway service conditions. Tire inflation is provided for by an attachment to the self-starting device, allowing air from the pressure tank to inflate the tires, without pumping.

**Suggests Substitutes for Old Terms.**

Turning from a pondering on the graver matters of the automobile industry, the Association of Licensed Automobile Manufacturers has found time to take up a consideration of some phases of the nomenclature of the trade, and has picked a fight with the terms "pleasure car" and "commercial vehicle." At last week's meeting of the Association, the discussion developed a sentiment to the effect that these terms are regarded as being in a sense "unfair to the trade as a whole." The use of "commercial cars" to denote freight carrying automobiles was condemned as a misuse of terms, inasmuch as "all automobiles are commercial and practicable," according to the Licensed Association. The general opinion, it is indicated, seemed to be that automobiles should be termed "passenger automobiles" and "freight automobiles," in the same way that railroads term their equipment "freight cars" and "passenger cars."

## MONEY LOST IN MEXICAN RUBBER

Conditions Militating Against its Successful Cultivation Explained—Difficulties and Mistakes of Promoters.

People with a little cash that yearned to be invested a few years ago were beset by those who were nourishing various projects for the development of Mexican rubber. Stock companies were formed, plantations started and, incidentally, a good deal of ready money was collected by the promoters. In view of the present rather tense situation in the crude rubber market, especially because of the intimate relation which that situation bears to the price of automobile tires, it is interesting to learn of the outcome of the attempt to boom Mexico as a rubber country.

That Mexico produces a certain amount of cultivated rubber in addition to the native rubber which it has produced for many years, there is no question. But it is the opinion of United States Consul William W. Canada, who has investigated the subject very thoroughly, that not more than 20 per cent. of the rubber produced in the state of Veracruz, his own district, during the year 1908 was the product of cultivation. Since the boom of the rubber planting industry, in 1897, Consul Canada estimates that probably 50,000 acres actually have been planted with the "Castilloa" tree. At the present time more than half of the acreage has been abandoned, having proved a complete failure, while the remainder is supposed to be producing just about enough rubber to cover expenses, with a possible margin of slight profit during an era of reigning high prices such as prevail just now.

In reporting on the situation the Consul explains that in some instances ordinary laborers may be found in charge of the plantations which were started a few years ago on expectations of most fabulous profits. The laborers, in return for their services as caretakers, are privileged to gather whatever rubber they can. In other instances, one or two of which he cites specifically, principal stockholders in the holding companies have assumed control for the protection of the creditors and are running along, barely covering expenses and hoping for soaring prices, which may bring them salvation. In a very few instances, particularly in cases where there has been no stock jobbing end to the enterprise, owners are receiving a fair return on their investments. In other cases, it may be observed, returns are being obtained from other products of plantations which were started with rubber as the principal crop.

The general failure of the movement as a whole Consul Canada ascribes to a variety of reasons, reasons which, broadly speak-

ing, may be summarized under the general heading of too hasty promotion. In the first place, the question of the age at which they gain their greatest yield never has been settled in a perfectly satisfactory manner. Promotion literature commonly has placed it at from three to six years, but experience has shown that the latter age is the more reasonable expectation. Thereafter, good trees may be expected to increase their yield from 10 to 15 per cent. per year up to 12 years of age. Beyond that age, no figures are obtainable.

Variation in labor costs, lack of provision for adequate shipping facilities, and over-expectation of the quantity of rubber in the first few harvests are among the principal causes of disappointment to the planters. In some instances a yield seven or eight times the amount actually received had been confidently expected.

Furthermore, a serious mistake was made at the very outset in the assumption that because the "Castilloa" was a native tree, climatic conditions throughout that part of the country were properly suited to its cultivation. Time has proved that such is not the case, and many plantations were located in places where successful rubber cultivation is a practical impossibility. Added to this the Consul observes with a touch of sympathy for the deluded investors, "that 90 per cent. of the numerous plantation companies that have operated in this consular jurisdiction were managed in an incompetent and even corrupt manner."

During the year 1908 the total rubber production in the state of Veracruz amounted to but 387,417 pounds. In past years prices at shipping points have ranged from 45½ to 79½ cents, United States currency, per pound. Recently, however, the effect of the boom prices has been manifest, and those who have been able to ship in quantities have received as much as \$1.48, United States currency, per pound. In this connection it is somewhat enlightening to observe that since the recent rise in prices, representatives of English companies have appeared in the district negotiating for the purchase of rubber plantations.

### Removing Carbon from Exhaust Pipes.

When cleaning the pistons and cylinder heads of an engine which is badly carbonized it is a good plan to examine the exhaust manifold and muffler carefully, removing from them as much of the accumulated soot as can be reached. The reduction in area of the passages from this cause, together with its effect in retarding the flow of the gases, has a very noticeable influence in cutting down the power of the machine. In the case of chemical decarbonizers, the preparation may be introduced into the exhaust pipe through the exhaust valves. Heavy muffler explosions may follow such an attempt, however, owing to the combustible nature of the decarbonizer.

## AUSTRIANS KNOW AMERICAN PRICES

They Refuse, Therefore, to Pay Double Prices for American Cars, According to Consul Denby of Vienna.

Generally speaking, the development of the automobile movement is supposed to be governed locally by highway conditions as much as anything else. United States Consul-General Charles Denby, of Vienna, however, adds to the poor roads handicap another, namely the opposition developed by lovers of the horse. This is stronger in the Austrian Empire than in any other country, he asserts. Considering Austria as a field for American exploitations, he discovers a good opportunity masked by the need for careful selling methods such as appertain universally in connection with the export business.

"There are at present 8,000 automobiles in Austria, of which 3,500 are in Vienna," Consul-General Denby states. "These machines, as a rule, are low powered—14 to 18 and 16 to 18 horsepower, although some 28 to 32 and a very few 45 horsepower machines are found. The prevailing type is the landaulet and limousine, these being considered the most suitable to Austrian weather conditions.

"Nine companies are manufacturing automobiles in Austria, whose total output was 1,600 machines in 1909. The carriage builders of Austria have a reputation for turning out bodies of high excellence, and the practice of the auto factories is to quote for chassis apart from the carrosserie, although quotations for complete machines can be had, if wanted. . . .

"The American automobile has secured no foothold in this market, but there is certainly a demand here for small, strong, high-power machines, if they could be sold at rates approximating those in the United States. The comment made on previous efforts (of which there have been several) to find an opening for the American product, is that prices were increased over those advertised at home out of all proportion to the added cost of shipment, duties, etc. The advertised prices in the United States are well known here, and when these are doubled, as they have been, for Austrian delivery, the chance of sale is killed. The American trade is at present insignificant, but it is certain that a good cheap American machine, introduced in the right way with vigorous agents and intelligent advertising, would have a large sale. This market is decidedly well disposed toward American manufactured products, but patience and energy are necessary in order to bring them to the public notice. Success in other lines, after initial discouragement, should be an example to the automobile maker to persevere."

## GIVES VISION OF A 1915 MODEL

Foreign Expert Prophesies its Specifications  
—Includes Valveless Engine, Worm  
Drive and Helical Suspension.

Valveless engines of the V-type, front and rear wheel brakes, helical suspension springs, worm drive, wire wheels and bodies of the "dustless" pattern, evolved, perhaps, from the present torpedo types, but having also the protective and convertible advantages of the present-day landaulettes, are features which for the most part are regarded as novelties now, but which many students of automobile matters regard as holding great promise for the future. M. Baudry de Saunier, the well-known French engineer and editor, is one such, and with a possible desire to mask his opinions under the filmy disguise of prophesy, he has embodied them all in his vision of a car of 1915.

The salient points of the design thus conjured up at first do not seem to be particularly radical, especially since nearly all of the features involved at present are known and used in one form or another on cars produced in different countries or by different builders. Thus the entire stripping of the running boards of all encumbrances, save possibly the spare wheel, is a point gained by many torpedo types. So, too, is another point, that gained by eliminating the familiar sod or dust pan in favor of an enclosed power plant, mounted on a sub-frame, with protecting strips of sheet steel enclosing the space between the main frame and the inner supporting structure.

A more radical feature is the entire elimination of side control levers\* so as to afford equal access to the driver's seat from either side. The steering wheel is provided with two small levers, one controlling the change-speed gear, and the other a finger piece, which serves only to block the rear wheel brake pedal, and so prevent the brake being released when the engine is being started or when the car is at a standstill. There is also a front wheel brake pedal, but there is no brake on the transmission. The dashboard is utilized as a fuel tank, giving a positive gravity feed to the carburetter, which is placed in a warm spot in the apex of the eight-cylinder V-type motor, so as to require no water heating.

The eight-cylinder engine, which is a conception carried out with considerable detail, is given a bore and stroke of 65 by 120 millimeters, respectively, or about 2 19-32 by 4 13-16 inches. It is formed with all the piping and distribution ports cast with the cylinders. Ignition is by high tension magneto; the carburetter, an automatic one with two jets; and the radiator, which is provided with a fan, is located above the cylinder heads and arranged to

work on the thermo-syphon system. The lubrication is carried out automatically, the only external fitting being the head of a small gauge which indicates the oil level, similar gauges being fitted to the gear-box and differential case.

The type of clutch and change-speed gear employed are not specified, but the transmission from the latter is by rigid shaft enclosed in a tubular torque rod to a single flexible joint connecting with a worm pinion meshing with a helical gear, the rear end of this drive being suspended from two cross members of the chassis in a casing which also encloses the differential gear. The latter drives the rear wheels through a suspension system consisting of a pair of universal joints on the inner ends of the two portions of the live axle, and braces which are hinged to the differential casing, and which with their outer ends form collars supporting the live shafts close to the wheels.

The principle of the transmission system, it will be perceived, already is realized in one or two European chassis designs, most notable of which is the DeDion. The suspension system, however, though suggested in one or two proposed arrangements which have not come into general use, appears to be largely a creation of the author's brain. It is distinguished by the entire elimination of the elliptical form of flat leaf springs and the substitution for it of the helical spring together with a species of compensating mechanism which is adjustable in such a way as to be adapted to various local highway conditions.

Attached to a depending rear "horn" of the frame, much like the present dumb iron in exaggerated form, are heavy bell-crank members, one at each end of the rear axle, the lower and horizontal arms of which serve the purpose of distance rods and drivers. The vertical arms of the bell-cranks are attached directly to the rear ends of a pair of long helical springs which reach forward above the axle and are joined at their front ends to the extremities of a compensating lever, which extends across the frame just in front of the differential housing. The compensating bar, besides having a rocking action, which permits it to shift a portion of the load of one spring on the other, is made adjustable fore-and-aft of the chassis; thus providing means for varying the tension of the springs to suit highway conditions.

### Leaks in the Inlet Manifold.

One of the rare instances in which the vibration of the car, or the influence of unusually severe road shocks can affect the operation of the motor is when a leak exists in the intake manifold, or when one or more of the joints are loosely connected owing to the looseness or loss of one or more bolts. Under such circumstances, the effect of vibration will be to cause the leak to vary, thus upsetting the mixture.

## PERIL IN CRANKING ON "BATTERY"

Back-Kicks may Result, if Battery Current  
Leads Through the Magneto—Ex-  
plaining the Phenomenon.

Certain types of ignition system which are designed to permit starting on battery current but normally running on the magneto are prone to develop a rare though puzzling difficulty at times in the form of unexpected backfiring. Though this occurrence may be so rare as to be unknown to the average user, the very possibility of its existence, according to the hypothesis of the Automotor Journal, is sufficiently threatening to make it well worth while never to attempt to start on the battery by means of the crank. If the cylinders are filled with gas by cranking with the spark cut off and the switch is then cut in, there is no liability of injury resulting should the difficulty arise.

The system to which reference is made is that in which, instead of a special spark coil for use with the battery, the magneto armature is employed temporarily as a transformer, a special form of circuit breaker being thrown into action for the time being. Says the authority mentioned:

"This is a very simple and effective means of starting, but it essentially involves a certain constructional alteration in the magneto, which may be best described by saying that the contact-breaker cam is turned inside out as compared with its orthodox form. The immediate and obvious result of this change in design, considered from the electrical standpoint, is that the magneto armature circuit is normally open instead of normally closed; the closing of the circuit being so arranged by the cam that it takes only just a sufficient time before the break for the current in the armature coil to grow to its maximum value. A magneto operated in this way is capable of working just as effectively, so far as we have observed, as one that embodies the ordinary system of a normally closed circuit, and there is, of course, the advantage that it enables a battery temporarily to be switched across the armature, so that a hand-controlled break of the circuit results in producing a spark within the correct cylinder.

"There is a very curious and highly important subsidiary result of the use of the 'inside-out' cam, however, which gives rise to a phenomenon that is apt to make itself painfully apparent to the unwary motorist, and as it took us some considerable time to locate the cause thereof, it may not be without interest to explain the details. The phenomenon in question is the more mysterious as it is only to be observed when an engine thus equipped is, for any reason, cranked by hand prior to, or instead of,

starting on the switch. As every motorist of experience knows, the success of switch starting depends entirely on the presence of an explosive mixture in the cylinders at the time the spark takes place, and if for any reason the engine has not been stopped in a suitable manner, or is in any way leaky, it will not start on the switch, however effective the switch-starting may be from an electrical standpoint. In the event of the engine refusing to start, the chances are that the motorist would leave the switch on, and ignition-lever retarded, and proceed to crank the engine by hand.

"Now it is a common feature of magneto ignition that an engine very frequently refuses to start with the timing lever retarded, and if this is the case with the engine in question, the motorist will fail to produce the desired result after the initial pull-up or wind, as the case may be. This is where the danger comes in. Just as he realizes that the conditions are not suited for starting there will be a sudden and most unexpected back-fire coming after he has ceased cranking, but it takes place so immediately afterwards as often to catch the unwary. Anyone would, however, immediately be impressed with the fact that something mysterious had happened, and the first idea would very naturally be that the battery circuit had in some way come into operation through a chance connection. Search, however, would reveal no clue to anything wrong with this circuit.

"The real cause of the trouble is this: when an engine has been cranked by hand, and has refused to start, the force which brings it to rest is the compression in the next cylinder, and it may be observed, if anyone has the curiosity to watch the action of a fly-wheel under such circumstances, that the final action immediately preceding the state of rest is a momentary reversal of rotation through a few degrees.

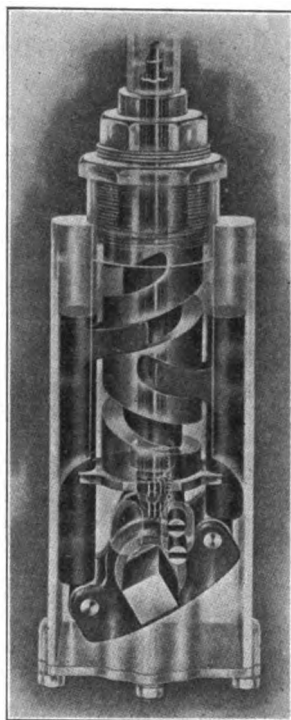
"It is this reversal that causes the mysterious back-fire in question. The magneto has been fully retarded in respect to the ordinary direction of running, but in conjunction with the double-acting cam the same setting of the lever implies that the magneto is fully advanced, if the direction of rotation is reversed. In other words, the piston has traveled sufficiently far on its upward stroke to cause the armature-circuit to be closed; and then its return movement is every bit as effective in causing the rearward face of the cam to break the armature-circuit as though the other face of the cam were to sever the contact-points in the normal manner. Everything is, moreover, admirably suited for an effective spark, even at very slow speeds, and the cylinder, having been charged with explosive mixture as the result of cranking, instantly fires. The reversal also causes the inlet-valve to open, so that the explosion flashes back down the induction pipe.

"Any engine is subject to this same momentary reversal of rotation, but the

effect produced is not the same with the orthodox type of magneto, for the simple reason that it does not have to 'make' the circuit just prior to the normal 'breaking.' If the armature continues to rotate forwards the break occurs too late to produce a spark, but if it rotates backwards, ignition almost certainly takes place—with the above-mentioned very astonishing result. . . . The absolutely safe solution to the difficulty is to make a practice of 'winding' the engine with the switch off, and thereafter to start the engine by the press-button. This is the more to be recommended, inasmuch as it emphasizes the purpose of the switch-starter, and will gradually lead to a maintenance of the conditions that render switch-starting effective."

#### Steering Gear that is "Gearless."

Relying on the action of spiral cams which displace all gear or screw and nut



arrangements such as commonly are used, the gearless steering gear just has been introduced by the Gearless Steering Device Co., Indianapolis, Ind. As the accompanying picture shows, the actuating member, which is mounted solid with the base of the steering shaft, is formed with two helical cam grooves on its surface, one cut right and the other left handed. Into these grooves fit appropriately formed yokes, one on either side, which are integrally formed on sliding finger pieces which travel parallel to the steering column. As the steering wheel is rotated, one finger piece is moved up and the other down, and as the base of each rests upon a hardened steel roller which is riveted to a double rocking lever on the horizontal motion shaft, it is evident that complete control of the movement of the latter is obtained at all times.

Adjustment for wear is accomplished by taking up the nut and check at the top of the device, which provides means for absorbing all needless play. The group, as shown, also includes telescoping control rods and suitable means for connection with carburetter and spark regulating members by means of a rack and pinion system.

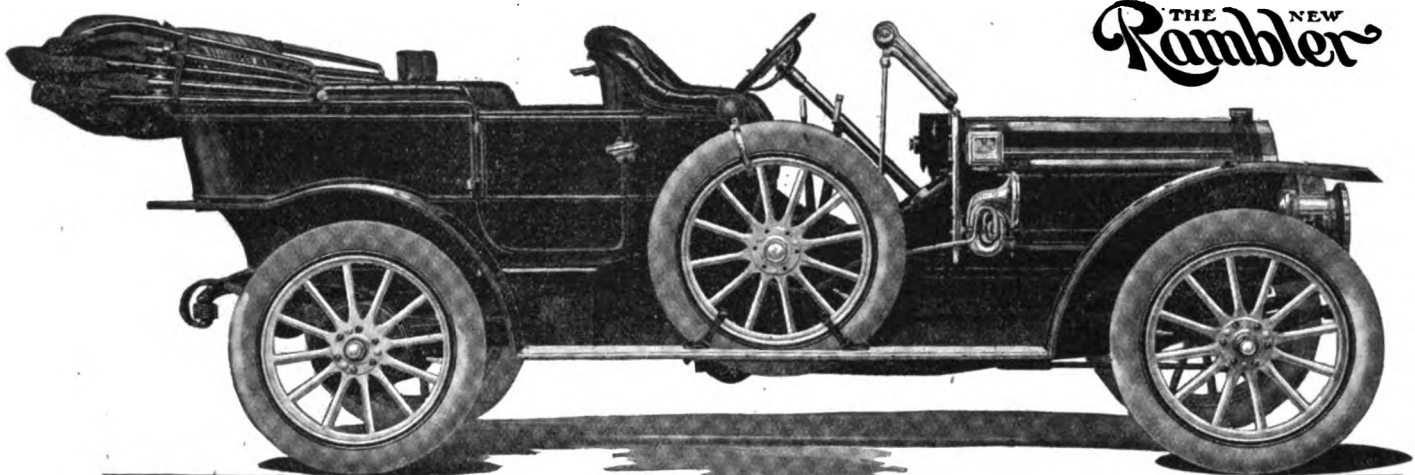
The same general principle also is applied in a steering gear which is designed for light cars of the runabout class, instead of for roadsters and touring cars, like the larger device. In the smaller arrangement spiral cams are mounted on the primary motion shaft in reverse position. They bear at all times against the rollers on the rocking lever, which, in this case, is placed at one side of, instead of below, the steering shaft. As in the other device, adequate provision is made for taking up wear.

The Gearless Steering Device Co. also is producing a form of ball-bearing universal joint, in which the usual central cross is done away with and Y-shaped end sections are employed. The central member of the joint, which is a single-piece ring, provides means for assembling and adjusting the four balls, which are "halved" into place between the ring and the ends of the shaft members. A particularly neat and effective method of locking the adjusting screws is employed, which is both ingenious and effective in protecting the joint against failure through loss of adjustment.

#### Portable Light with Cord Reel.

Portable electric lights, such as are used in garages and repair shops, generally have the objection that their connecting cord presents an awkward array of tangles and long loops, being in most cases either too long or too short for the job. A device, which, while designed primarily for household purposes, nevertheless is claimed to serve a valuable function in such situations, has been brought out by the L. A. Williamson Co., of Boston, Mass. It is known as the Flexilyte, selling for \$5, and containing a reel for about 15 feet of lamp cord, together with a socket for holding an incandescent bulb. The cord, which has a standard attaching plug that will fit into any standard fixture socket may be unwound to any desired length within the fifteen feet maximum, after which it may be held fast by means of a sliding catch. If used as part of the traveling equipment for a car, it is not necessary to carry a bulb, as a standard incandescent lamp fits the Flexilyte socket and may be transferred from the wall fixture or electrolier to the Flexilyte case. The attaching plug at the end of the cord is then placed in the fixture socket where the bulb has been removed, after which the case may be laid horizontal on floor, bench or table, with the bulb standing upright, or may be hung vertically on any part of the car by means of the cord.





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## PRODUCING GRAPHITE FROM COAL

Its Manufacture Accomplished by Electric Furnaces—How the "Deflocculation" Process was Discovered.

Familiar as is graphite, not everyone knows that means have been found for its production by artificial means and that now a large proportion of the kind that is suitable for lubricating purposes is produced direct from cheap anthracite coal by the application of intense electrical heat. This production is comparatively recent, and the inventor of the process, Dr. Edward G. Acheson, of Niagara Falls, N. Y., who also is the inventor of carborundum, in giving an address on "Graphite" before the National Gas and Gasolene Engine Trades Association, at Cincinnati, O., on the 14th ult., has revealed the manner in which the discovery was made and the methods that are used for producing "deflocculated" graphite. Dr. Acheson said in part:

"Having the opportunity to use a comparatively large electric current, in March, 1891, I thought I would take up a series of experiments for the production of an artificial abrasive. These experiments resulted in my devising methods whereby a mixture of ground coke and sand, when subjected to a high temperature in an electric furnace, were caused to undergo chemical changes, the oxygen of the sand passing off with a part of the carbon as carbonic acid gas, the reduced metallic silicon associating itself with an equal atomic weight of carbon, resulting in the production of a new body up to that time unknown. To this body I gave the name carborundum.

"Very early in the manufacture of carborundum, which is produced at a temperature much beyond that of the vaporization of silica or sand, which has always been looked upon as one of the most durable linings for metallurgical apparatus, I found that when carborundum in the electric furnace was carried to a temperature very much higher than that of its production, decomposition occurred; the silicon portion of the carborundum would be volatilized and the carbon portion would remain as graphite.

"This carbon originally was in the form of ground coke such as is made from bituminous coal, but here I found that after having been associated with silicon in chemical combination, then freed from this association with silicon, it was transformed into one of the other allotropic forms of carbon appearing as graphite.

"The large electric currents with which the carborundum furnace is operated are carried into the furnace by means of carbon conductors or electrodes, and these were originally made in the form of rods com-

posed of coke resulting from the distillation of petroleum, this coke being ground to a powder and mixed with tar as a binder, formed under pressure and heated to a bright heat, decomposing and partially volatilizing the tar. In operating the carborundum furnace, the inner ends of these carbon rods or electrodes were invariably converted into graphite forms of carbon, and this, together with the decomposition of the carborundum and the resultant formation of graphite, caused the taking up of experiments for the development of a commercial method of making graphite.

"The first commercial graphite produced was in the year 1897, when there was manufactured a little more than 162,000 pounds of graphite rods to be used as electrodes in electro-chemical work. These rods were produced by the direct conversion of non-graphitic carbon rods, made from the residue of petroleum, into rods of graphite that were practically pure graphite through and through.

"Simultaneously with the development of the manufacture of graphite electrodes, there was conducted work on the manufacture of graphite in bulk, in the form of grains, powder, etc. The best crude material from which to make graphite was found to be anthracite coal, and this now has become quite a large business. A very large percentage of the dry batteries manufactured in the United States are now filled with this artificially made graphite.

"In the summer of 1906, during an experiment for the production of a product in the electric furnace quite foreign to graphite, there was noticed in the output of the furnace a small amount of a very soft, non-coalescing graphite, which at once was recognized as being of a character that would make it valuable as a lubricating graphite. All of the graphite that had been electrically produced up to that time had been of too hard a nature. Following up the discovery of this small amount of soft, non-coalescing graphite, methods were worked out for the commercial manufacture of this product, using as crude materials the cheaper grades of anthracite coal, and even meeting with success when using the waste from the anthracite coal mines—the large piles of culm to be found in the eastern parts of Pennsylvania.

"This new product, lubricating graphite, has received at the hands of the international Acheson Graphite Co., as a means of identification, the number '1340,' and by this number it is known today on the markets. The company manufacturing it guarantees it to have a purity of at least 99 per cent., whereas they know and take great care that none shall go one the market that has not a purity of at least 99½ per cent., while the average analysis from the electric furnace runs as high as 99.8 per cent. The small impurity still remaining in this graphite consists of condensed metallic vapors, distributed in particles so fine that

they cannot be detected except by powerful microscopes, and producing no injurious effect.

"For lubricating purposes the graphite is reduced to a state of disintegration so fine that 99 per cent. of it will go through the meshes of a sieve having 40,000 meshes per square inch. It can in some cases be used dry, but more generally when mixed with greases of varying consistencies it can be used in ball-bearing races, transmission cases, grease cups, and, in fact, any place where it has been the custom to use plain greases, the grease simply serving the purposes of a carrier. The graphite-grease product is known as 'gredag.'

The "deflocculation" of the graphite, or its subdivision beyond that attainable by mechanical subdivision, Dr. Acheson explains, was discovered in the fall of 1906, and was made possible by reason of discoveries which he had made a number of years before in relation to clays, when he found that the addition of organic matter, such as straw water or tannin, to the clay enormously increased the plasticity and strength and yielded a subdivision so fine that it would pass through a filter paper and would not settle in water, remaining suspended indefinitely. The familiar Bible story of the Children of Israel using straw in making brick under the instructions of the Egyptians partly was responsible for putting him on the track of the experiments, and the molding clay which resulted from his discoveries is now known commercially as "Egyptianized" clay.

The effect in the case of graphite is not produced by grinding, but is produced by mixing a solution of tannin with the graphite, making it sufficiently fine to pass through the finest of filter paper. The graphite, although weighing two and one-quarter times as much as water, will remain suspended in the latter indefinitely, it being assumed that in thus setting at defiance the law of gravity as it is known when applied to masses, a condition is arrived at where not masses but molecules are being treated.

When the deflocculated graphite is mixed with oil, it is known as "oildag," and in suspension in water it is known as "aquadag," the "-dag" portion of the words being composed of the initial letters of the words "deflocculated Acheson graphite." Four years of experiments and tests in automobile lubrication, according to Dr. Acheson, has shown that the use of oildag makes possible a two-thirds reduction in the quantity of lubricating oil for the engine, giving, it is claimed, the additional advantages of prevention of pitting of the valves, prevention of smutting of the spark plugs, freedom from smoke in the exhaust, prevention of wear between the cylinder walls and the piston rings, decreased carbon deposit in the cylinder and practical elimination of the abrasive action of the carbon set free from the oil.

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## RECENT PATENTS.

959,569. Magnetic Clutch. Frederick Ripon Martin and Oswald Montague, Shepherd, London, England. Filed Feb. 13, 1907. Serial No. 357,226.

1. A magnetic clutch including a wire equipped core, with the wire coiled in separate and continuous sections or coils and a lead wire connected thereto about midway of the wire of said sections or coils, and means for rapidly demagnetizing one coil or section thereof for releasing clutch.

959,571. Hood for Motor Vehicles. Wilson P. Mays, Portland, Ore. Filed July 18, 1908. Serial No. 444,269.

1. The combination of a motor-housing having a roof consisting of two half-sections hinged on a longitudinal axis, each section provided with a series of longitudinally aligned apertures, movable closure-plates arranged to control said apertures, a quadrant and lever, and connections of the universal joint principle between said lever and the connecting rods of the closure plates adapted to operate the latter as a unit.

959,579. Elastic Tire for Vehicles. Isaac Seaman McGiehan, Westminster, London, England. Filed Jan. 6, 1908. Serial No. 409,379.

A tire comprising a foundation portion formed of layers of fabric impregnated with rubber lying transversely of the tread portion, and a tread portion composed of annular layers of fabric impregnated with rubber standing perpendicular to the layers of the foundation portion, and side binders of fabric impregnated with rubber, said

foundation portion, side binders, and tread portions, and the layers of fabric and rubber therein being permanently united by vulcanization.

959,661. Road Vehicle Suspension. Frederick Walton, London, England. Filed Aug. 17, 1908. Serial No. 448,992.

1. The combination with the frame or body of a vehicle and its wheel axles, of a suspension device comprising an annular flexible cushion containing fluid under pressure, arranged edgewise in relation to the frame and axles and unsupported at its inner periphery so that its resiliency is primarily derived by resistance to deflection irrespective of compression and consequent reduction in capacity.

959,669. Tire Remover. Peter C. Wiest, York, Pa. Filed May 10, 1909. Serial No. 496,959.

1. A pneumatic tire remover embodying a handle having a reduced end portion, a sleeve of uniform diameter fitting loosely around the reduced portion of the handle, and a conical member or head mounted to turn freely on the reduced portion of the handle independently of the sleeve and beyond the outer extremity of the sleeve, said head being provided with a circumferential flange at its outer end where it is of the greatest diameter.

959,700. Headlight. Carl R. Blackman, Colorado Springs, Col. Filed Dec. 4, 1909. Serial No. 531,375.

1. A device of the class described including a case arranged to be mounted upon a vehicle; a lamp-carrying shaft journaled for rotation in the case; a pinion secured

to the shaft within the case; a second pinion mounted in the case and in mesh with the other pinion; a rack bar slidably mounted in the case and in mesh with the second pinion; an arm arranged at its lower end for connection with the movable portion of a vehicle axle, and arranged to extend to the front of the axle and above the same; and a rigid connecting bar located in the plane of the rack bar and pivotally connected at one end to the upper end of the arm and pivotally connected at the other end to the rack bar.

959,705. Vehicle Wheel. Arthur Brisbane, New York, N. Y. Filed May 4, 1907. Serial No. 371,871.

1. In a vehicle wheel, the combination of a plurality of solid tread members forming the tread surface of the wheel, said members forming a practically continuous tread surface, a hub, an annular flange extending radially from the hub, a plurality of projections on the flange, a plurality of holding devices U-shaped in cross section, one for each tread member, each of said holding devices having a projection on its underside, a plurality of springs, one for each tread member, supported by the flange and located between the flange and the holding devices and engaging the projections on the flange and on the holding devices, slotted side plates secured to the flange, and means on the tread members for engaging said slots to limit the movement of said tread members.

959,707. Vehicle Wheel. Arthur Brisbane, New York, N. Y. Filed May 31, 1907. Serial No. 376,689.

1. In a vehicle wheel, the combination of a sectional spoke rim or felly, an air or gas

# AJAX TIRES

Doesn't it make a great difference to you whether you buy guaranteed or unguaranteed tires?

Tires are a costly drain on the purses of motorists, and if you can get longer wear out of them for the same money it is folly to adhere to the old, trust-to-luck methods.

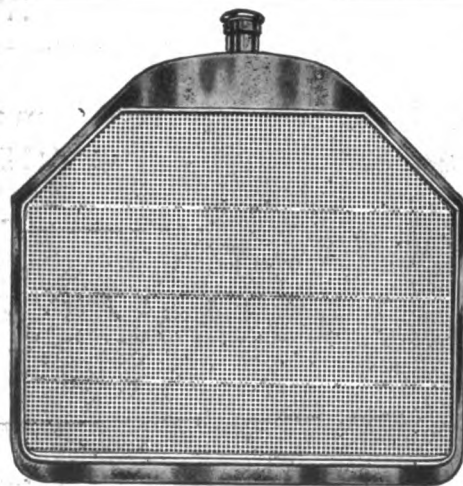
Most makers will guarantee for "materials and workmanship," but we are the only ones who issue with each tire a printed guarantee certificate, signed by our president, warranting you 5,000 miles or 200 days of service from each tire purchased.

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## THE BUSH RADIATOR FOR 1911

IN EFFICIENCY—The Highest  
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IN CONSTRUCTION—The Simplest  
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"The Most Practical Radiator"

Ask those who have used them in 1909 and 1910.

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tight tube of resilient metal supported by the felly and extending completely around the outer periphery thereof, means for moving the sections of the felly whereby its circumference is increased or decreased to hold the tube in position or permit its removal, a hub, slotted side plates secured to the hub at their inner edges, and a plurality of tread members having curved tread surfaces forming the tread surface of the wheel mounted in said side plates so as to contact with said resilient body and have a limited movement with respect to said tube.

959,732. Vehicle Wheel Rim. William E. Greer, Kenmore, Ohio, assignor of one-third to William F. Pfeiffer, Akron, Ohio, and one-third to Jacob Pfeiffer, Columbus, Ohio. Filed April 19, 1909. Serial No. 490,977.

In a vehicle wheel, a tire retaining means consisting of a split ring having one end thereof provided with a slot and a transversely-extending U-shaped keeper of less width than the length of the slot, said keeper extending over a portion of the slot, said ring having its other end formed with a laterally-extending shouldered lug adapted to engage one side of said keeper for connecting the split ends of the ring together, said keeper integral with the ring and said lug being rigid and integral with the ring, and said keeper extending transversely with respect to the ring and having its outer portion flush with the outer edge of the ring, said slot arranged approximately at the end of the ring in which the slot is formed and said lug positioned approximately centrally of that end of the ring with which it is formed integral.

959,878. Speed Changing Mechanism. Arthur Page, Providence, R. I. Filed March 2, 1910. Serial No. 546,796.

1. A speed changing mechanism comprising a main driving shaft, a jack shaft, a plurality of sets of gears on both shafts in constant engagement through which different speeds may be obtained, clutches for connecting said main shaft with the different speed gears, a power transmitting gear on the jack shaft meshing with the high speed gear, and means for withdrawing said transmitting gear from engagement with said high speed gear when the clutch is connected to the latter.

959,892. Vehicle Spring. Henry Wallace Smith, Canton, Ohio. Filed Nov. 11, 1908. Serial No. 462,078.

1. A vehicle spring consisting of upper and lower main spring, the upper spring having its end portion resting upon the end portions of the lower spring, the end portion of each spring being bent to form a scroll, said scrolls being oppositely formed, rigid inclined bars connecting the ends of adjacent scrolls, interior springs bearing on the main springs throughout their body portions, and means for securing said interior springs in their normal position with respect to the main springs.

960,308. Armor for Pneumatic Tires. Isidore Goldstein, Chicago, Ill. Filed June 24, 1907. Serial No. 380,385.

1. An armor for tires consisting of a plurality of layers each comprising a multi-

tude of relatively small laterally and longitudinally abutting plates breaking joint with each other, said layers being offset relatively to each other and breaking joint with each other.

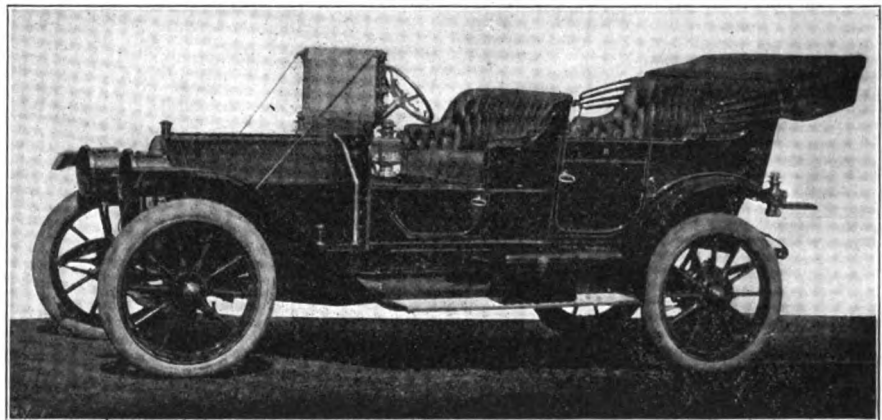
# KLINE CAR

## New Series Model 6-40 Ready for Delivery July 15, 1910

IN KEEPING with the POLICY of the B C K Motor Car Co. to bring out NEW SERIES from time to time, we will have READY FOR DELIVERY on the date stated above our NEW SERIES MODEL 6-40. In addition to the MANY ADDED IMPROVEMENTS, we will give an option of DOORS IN FRONT.

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Made by the Makers of the famous Kelly-Springfield solid tire

## STAMPINGS

Hub Flanges, Hub Caps, Ball  
Cups and Retainers, Thrust Discs,  
Clutch Discs, Sectors, Muffler  
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Side-Wire Solid Motor Tires

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New Haven, Conn.

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Air Pump a  
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The ten large steamers of the fleet are of mod-  
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## ESCAPING VELIE'S DAMAGE SUIT

**Remaining Defendants Block Present Action—Kopmeier Demurrer Sustained—Makers Invoke a Writ.**

By lively wriggling the defendants in the \$500,000 damage suit brought by the Velie Motor Vehicle Co., of Moline, Ill., in the Milwaukee courts continue to "get from under."

Twenty-one of the 25 defendant members of the Association of Licensed Automobile Manufacturers succeeded on June 11 in being dismissed as defendants, on the ground of want of jurisdiction, in that their Milwaukee agents, who were served, were not the legal representatives of the company. The remaining four who were held, including the Pierce-Arrow Motor Car Co., the Pope Mfg. Co., the Locomobile Co. of America, and the Chalmers Motor Co., have secured a writ from the supreme court of Wisconsin which prevents the circuit court from assuming jurisdiction. Topping this, the Kopmeier Motor Car Co., of Milwaukee, which the Velie company sued as an agent conspiring with the Selden forces, has been sustained in a demurrer of the charges brought against it, so that as the situation now stands, not a defendant is left for present attack under the original suit.

Judge Eschweiler on the 3rd inst. sustained the Kopmeier demurrer to the Velie complaint and all the contentions of the Kopmeier attorney were granted by the court's order, in addition to which the attorney, Henry V. Kane, was complimented by the court for the citations of law presented. The Kopmeier company is relieved of further responsibility in the case unless the Velie company brings new or amended action.

The four licensed motor car manufacturers who were held by Judge Turner of the circuit court, took an extraordinary method for blocking the complainant. They

invoked a writ of prohibition from the supreme court, with the result that the circuit court cannot have the case until the supreme court decides whether or not the defendants, as foreign corporations, properly can be placed in the jurisdiction of the circuit court. The stay of proceedings has been granted until September 6th in the supreme court.

### Nebraska Company Swells to a Million.

The Jonz Auto Co., of Beatrice, Neb., which two years ago was an exhibitor at The Chicago show with a two-cycle air-cooled type of machine, but which heretofore has produced cars only in a small way, has been expanded to a capitalization of \$1,000,000 and is to be known as the American Automobile Mfg. Co. It is claimed that \$100,000 of the stock has been subscribed for by Chicago and Kansas City men, and plans are announced for the establishment of factories in Kansas City and Louisville, Ky.

### Imports Fall Off Nearly 50 Per Cent.

That the importation of foreign motor cars for American use is a decaying activity strikingly is shown in the import figures for May, these being only about half of what the imports were for the same month a year ago. During May, 1910, there were imported 83 cars, having a value of \$173,344, while in May of last year the imported cars numbered 193 and were valued at \$301,971. While the aggregate value of the cars imported is smaller their average is much greater.

### Wagon Makers to Build Convertibles.

Haller Bros., of Louisville, Ky., carriage and wagon makers, are preparing a portion of their plant for automobile manufacture and intend to commence building cars next month. George Haller, of the firm, has completed a vehicle having a two cylinder opposed, 14 horsepower, air cooled motor, as a prototype of the convertible pleasure and business machine that the factory is to produce. The rigs will be of the low wheel, solid tire, motor buggy order.

## MATHESON ASKS FOR RECEIVERS

**Step Taken to Protect the Business—Receivers to Borrow Money—Claim Company is Solvent.**

As a protection for the business during what is described as a purely temporary financial embarrassment, the Matheson Motor Car Co., of Wilkes-Barre, Pa., has applied to the courts for a receivership. Three receivers have been appointed, these being Colonel Asher Miner, the president of the company; W. C. Shepherd, a Matheson director and a member of W. H. Shepherd & Co., one of the biggest contracting firms in Wilkes-Barre; and Harold L. Pope, the designer and engineer for the Matheson company. On Monday, 11th inst., the receivers obtained permission from the court to borrow \$50,000 in order to pay employees and purchase materials necessary for the completion of the cars now in process of construction. As soon as the loan is secured the company will resume work.

It is claimed that the company is wholly solvent, the assets exceeding the liabilities by about \$260,000, the former being placed at \$1,042,500, of which \$600,000 is represented by cars and parts, and the latter at \$780,000. Delays in the receipt of materials, the checking of deliveries on dealers' contracts, and the impatience of a few of the creditors are assigned as the reasons for the company's taking the receivership step.

In speaking for the company, C. W. Matheson, president of the Matheson Automobile Co., of New York City, which distributes the Matheson product, explains the situation as follows:

"The action of the Matheson Motor Car Co. in applying to the courts of Luzerne county, Pa., for a receivership is entirely friendly, and, in reality, spells a step in the direction of an expansion of the manufacturing company. The immediate cause is the action of a few of the creditors who

are pressing their claims to the detriment of the company. For the conservation of the interests of all, the receivership was decided upon as a friendly protection.

"The indirect cause leading up to the action was the delay in the shipment of materials to the factory, the cold, wet spring weather, and the general slump in the stock market, which affected deliveries on dealers' contracts for several hundred cars. If the dealers had not been restrained, because of these conditions, from taking the cars contracted for, the necessity for this action might not have arisen. It is expected that the receivership will be only temporary. Plans practically are completed for a larger factory output than ever before, and the manufacturing company will doubtless emerge from this passing storm in a more sound and healthy condition."

Through the loyal support given it by Wilkes-Barre stockholders, the company has been successful in weathering previous financial storms. It was brought from Holyoke, Mass., in 1905, through the interest of the Wilkes-Barre board of trade. The company agreed to raise \$115,000 in cash provided the Wilkes-Barre investors would put up \$85,000 in the venture. Early in 1906 a contract for the entire output of the factory was made with the Matheson Company of New York, the principal stockholders of which were Henry U. Palmer and Charles A. Singer, who paid \$80,000 into the Wilkes-Barre company.

After having placed a contract for 250 cars for 1908, the New York company had a disagreement with the manufacturing company in the fall of 1907. It changed its name to the Palmer & Singer Mfg. Co. and subsequently repudiated the Matheson contract. In consequence of the difficulties in which the Wilkes-Barre company was placed by the cancelation of the contract, a creditors' committee was formed, the creditors agreeing to take half cash and half in bonds, \$154,000 worth of which were issued. At a meeting in Col Miner's office, nine Wilkes-Barreans contributed \$50,000 to keep the company going.

The Matheson Automobile Co., of New York City, was formed in August, 1908, with \$150,000 cash capital, to act as selling agent for the manufacturing company. Col. Miner was made president of the latter in November, 1908, and C. W. Matheson became president of the former. The manufacturing company has \$364,880 worth of preferred stock outstanding and \$154,200 in bonds, the latter held entirely by creditors who accepted them following the difficulties with Palmer & Singer.

#### **Tulsa Makers Take a Factory.**

The Tulsa Auto Co., recently organized in Tulsa, Okla., has taken a factory site and is arranging for the completion of its plant by September. The first building will be of brick, two stories high, 150 x 50 feet.

## **FOUND ONE SENSIBLE CUSTOMER**

**Parts Maker Gets a Surprise from a Budding Car Manufacturer—Latter's Caution Commended.**

Not only are many of the established motor car makers, through their press agents, issuing almost impossible production figures as to their present and prospective outputs, but not a few of the fledgling companies, which are preparing to put cars on the market, are affected by inflated production ideas, and while they may not always actually undertake to manufacture as many cars as they announce for their probable production during the first year, they nevertheless often bite off considerably more than they can chew. Makers of parts for cars of the "assembled" variety have become cautious in the case of new concerns that talk big production figures for their first year, as the parts makers are among those who suffer most when the new companies get into difficulties through attempting greater outputs than their factory and financial capacity will allow. An instance of how conservatism is welcomed by the parts makers is being narrated in Detroit.

An officer of one of the newly formed companies called on a maker of automobile parts, with a view to contracting for the new company's requirements. He was asked as to the number of cars for which parts would be required.

"Ten," replied the intending purchaser.

"Ten!" exclaimed the parts maker. Then rising from his chair and grasping the man heartily by the hand, he declared: "I don't know you at all, but you can have anything you want without my asking you another question as to your standing or responsibility. Anyone who has the good judgment to go so carefully as that needs no investigation by me. I am used to having new automobile manufacturers come in here and order from one to many thousands of parts, and our storehouse is full of parts which cannot be taken by the firms who ordered them. I wish you every success, and I believe that with the judgment you are showing your company will prosper."

#### **Klaxon Acts Against Philadelphians.**

After "cleaning up" the New York City firms who have been offering Klaxon and Klaxonet horns at less than the established prices, the Lovell-McConnell Mfg. Co., of Newark, N. J., has conducted an investigation of the retail market in Philadelphia, Pa. with the result that it has secured injunctions against two Quaker City firms, and has listed two more as "objectionable" under the terms of its selling license, so that they are not permitted to handle the goods. Nineteen establishments were visited, and all were found to be

maintaining the Klaxon prices except the Manufacturers' Supplies Co. and the Auto Accessories Co., against whom injunctions were issued, while the Keim Supply Co. and the National Auto Supply Co. were quoting lower prices than list, but were not making any actual deliveries of the horns. In lieu of injunctions against the latter two, they have been designated as "objectionable" to the Klaxon makers.

#### **Economy Passes into New Hands.**

The Economy Motor Car Co., of Joliet, Ind., has passed from Joliet hands to Chicago interests. Stockholders in Joliet, headed by Col. John Lambert, who was president of the concern, and Dr. J. C. Flowers, have disposed of their holdings to a syndicate of which William H. Everett was the authorized representative. The plant will be run without radical changes for the present.

#### **Bower to Move from Dayton to Detroit.**

The Bower Roller Bearing Co., of Dayton, O., has decided to remove to Detroit, Mich., and steps have been taken toward the erection of a new factory for the company in the latter city, to the ready by fall. The concern has reincorporated, this time under Michigan laws, with \$250,000 capital, and a number of Detroit men have become interested in it financially.

#### **Detroit Office for Taft-Peirce.**

The Taft-Peirce Mfg. Co., of Woonsocket, R. I., is opening an office in Detroit, Mich., at 1311 Majestic building, for the purpose of better looking after its Middle West business in the designing and construction of jigs, fixtures, gauges and special tools. A corps of competent mechanical engineers will be located at the Detroit office.

#### **Clover Leaf to Produce Parts.**

By the combining of the Clover Leaf Machine Co. and the Yuester Axle and Transmission Co., both of South Bend, Ind., a new concern has been formed, which will be known as the Clover Leaf and Axle Co. It will make parts and accessories for motor cars, and will occupy a factory having 22,000 square feet of floor space.

#### **South Carolinians Start a Factory.**

Chester, S. C., is to have an automobile factory, D. P. Crosby and F. M. Hough, of that place, having formed a partnership under the name of the Hough Automobile Co., for the manufacture of cars. A foundry building on Gadsden street and owned by Crosby will be utilized as the plant.

#### **To Manufacture Starrs in Wisconsin.**

The Starr Motor Car Co., of Minneapolis, Minn., is to build a factory in Downing, Wis., for the manufacture of Starr cars. F. W. Starr will have charge of the factory, but the main offices of the concern will remain in Minneapolis.



**INSTALMENT LURE IS THEIR BAIT**

**Offer of Automobiles in Monthly Payments  
Draws Names of People with Spare  
Cash—A Novel Scheme.**

New use has been found for the lure that lies in the offer to sell automobiles on instalments. In the past the bait has been highly successful as a means for separating victims from their money by the simple process of keeping the first payment and not sending the car, as in the case of the Terminal Auto Co., of New York City, which the Motor World exposed, and that of a Detroit dealer who ran foul of the Federal authorities. But a new refinement in the game has been developed, apparently, by which the money separating process is less crude and less liable to unpleasant legal consequences.

Several of the New York City newspapers not long ago contained an advertisement offering "Automobiles Sold on Monthly Payments," the text of the offer being as follows:

"We will sell to responsible people any American made machine, new, at regular price, immediate delivery when possible, to be paid for in monthly installments covering from four to eight months time. No objectionable conditions, straight sale, no fees of any nature. Terms furnished on request." The advertisement was signed "Associated Owners," and gave only a post-office box address.

Inasmuch as most of the cars on the market cost \$800 or more, it will be seen that anyone answering the advertisement in good faith might be expected to be prepared to pay at least \$100 per month if taking the maximum instalment period of eight months, and at least \$200 a month on the four months basis. Strangely enough, out of several letters sent by different people in answer to the advertisement, not one received any reply on the automobile proposition. There did come, however, a letter from an alleged firm of stock and bond brokers, with a tempting proposition for beating Wall street and offering to show the way by which their clients might graduate from the "lambs" class to that of prosperous "wolves," making small capital, "under judicious direction in the stock market, yield a fortune."

One of these letters was sent to an address which the person answering the automobile advertisement never before had given, proving to his mind that the brokers' letter was connected closely with the advertisement, as only through the answer to the motor car offer could it be known that mail would reach him at that particular address. Those who answered the advertisement would appear, therefore, merely to be supplying a choice list of names of

persons having sufficient ready money saved or a sufficient income to make it worth while to try and get it away.

**Becomes First Voluntary Bankrupt.**

First honors for taking advantage of the recent amendments to the bankruptcy laws, which permit corporations to go into voluntary bankruptcy, fall to an automobile concern. Heretofore only persons of the flesh could become voluntary bankrupts, but the bankruptcy provisions now have been changed so that artificial persons, created by law and known as corporations, also may enjoy the benefits of involuntary bankruptcy. The New Amsterdam Motor Co., of New York City, doing an agency, rental and garage business, was a petitioner under the act on the 7th inst. The company stands in the light of making a very thorough job of its bankruptcy, as a petition in involuntary bankruptcy had been filed against it some time before by creditors. The liabilities are \$52,226, of which \$20,000 is in two claims for damages which have not been liquidated, and the nominal assets are \$18,329, consisting of materials and office furniture, \$1,738; machines, \$2,144; accounts, \$3,401; cash, \$346, and Crawford automobiles, \$10,700, subject to liens under conditional bills of sale and chattel mortgage. Morgan & Wright has issued an execution to the sheriff for \$1,839, and a levy has been made on some of the property of the corporation.

**Chadwick to Remain in Pottstown.**

The Chadwick Engineering Co., of Pottstown, Pa., which has been tentatively negotiating with other cities as to what inducements the latter would offer in order to get the company to move, is to remain in Pottstown, as the local Commercial Club, aroused to a fear that the plant might be taken from the city, has presented that company with a new \$70,000 factory. The old Chadwick plant is being taken by the Light Mfg. and Foundry Co., of Pottstown.

**Midland License to Midland.**

As the maker of the Midland car, which is now in the licensed ranks, the Midland Motor Co., of Moline, Ill., seeks a correction of a slip that was made in giving the manufacturer's name as the Moline Motor Co. It is the Midland Motor Co. which received the Selden license that makes the Midland car a licensed product. The Moline Motor Car Co., which makes the Moline Car, already was a licensee.

**Galloway Obtains Control of Mason.**

The controlling interest in the Mason Motor Car Co., of Waterloo, Ia., has been bought by W. Galloway, a manufacturer of that city. The company moved from Des Moines to Waterloo last year, following its purchase by Senator F. L. Maytag, whose holdings Galloway is understood now to have acquired.

**"PETE" IS RETIRED FROM M. A. M.**

**Wainwright Succeeds Him as Secretary and  
Barnes Takes His Directorship—  
More Members Added.**

Despite the fact that "Pete, the Hyatt man," as Peter S. Steenstrup at one time was pleased to be called, is now an agent for Columbia cars in Seattle, and that Columbia cars are made by a constituent company of the United States Motor Co., and that the United States Motor Co. interests have domination over the Westchester Appliance Co., and that the Westchester company is a member of the Motor and Accessory Manufacturers—despite all this elaborate chain which might give him a possible ground for retaining the secretaryship and a directorship of the association, he nevertheless has retired. His de facto retirement took place last April, when he left the Hyatt Roller Bearing Co., of Harrison, N. J., but he hopefully retained his titles until the quarterly meeting of the Motor and Accessory Manufacturers on Friday last, 8th inst., when L. M. Wainwright, of the Diamond Chain & Mfg. Co., Indianapolis, Ind., succeeded him as secretary, and Claire L. Barnes, of the Billings & Spencer Co., Hartford, Conn., took his place on the board of directors.

In addition to the eight companies named in last week's Motor World, seven other concerns were added to the association's roll of members, bringing the total membership to 193. The report of the treasurer indicated that the association is in an exceedingly healthy financial condition. The seven additional companies taken into membership, are: Western Motor Co., Logansport, Ind., gasoline motors, gray iron castings, etc.; Electric Welding Products Co., Cleveland, O., bolts, valves, transmission shafts, etc.; Hercules Electric Co., Indianapolis, Ind., magnetos; Sparks-Withington Co., Jackson, Mich., pressed steel products and automobile parts; Bosch Magneto Co., New York City, magnetos and ignition devices; Brown-Lipe-Chapin Co., Syracuse, N. Y., differential gears, etc.; Parker Motor Co., Hartford, Conn., gasoline engines.

**Bauer to Build Steel Bodies.**

The Bauer Steel Body Co. has been organized in Detroit, Mich., to manufacture steel bodies, tanks and other parts for motor cars. The factory, which is to be in operation by August, is at Warren avenue and 15th street, while temporary offices have been taken at 29 Rowland building. The concern is capitalized at \$20,000 and its officers are: Charles W. Rosenberg, president; M. C. Bauer, vice-president and superintendent; Milton C. Hirschfield, secretary and treasurer.

**The Week's Incorporations.**

Kalamazoo, Mich.—Independent Garage, under Michigan laws, with \$2,000 capital.

Detroit, Mich.—General Auto & Tire Co., under Michigan laws, with \$10,000 capital.

Lansing, Mich.—Wolverine Auto Club, under Michigan laws, no capital. Corporators—H. J. Power, C. F. Gilmore, H. C. Mills.

St. Louis, Mo.—Overland Motor Car Co., under Missouri laws, with \$10,000 capital. Corporators—J. H. Harrington, T. B. Funk, H. R. Harrington.

Fort Wayne, Ind.—L. C. S. Motor Co., under Indiana laws, with \$100,000 capital. Corporators—Charles LaDue, Jeremiah Carmer, C. O. Snyder.

Chicago, Ill.—American Taximeter Co., under New York laws, with \$200,000 capital (capital in Illinois, \$15,000); to operate taxicab service in Chicago.

Chicago, Ill.—VanDyke Motor Car Co., under Michigan laws (in Detroit) to be located in Illinois, with \$1,000,000 capital in Illinois, \$5,000.

Dover, Del.—Co-Operative Trading Syndicate, under Delaware laws, with \$100,000 capital; to manufacture, construct, maintain and operate automobiles

Chicago, Ill.—Chicago Commercial Car Co., under Illinois laws, with \$2,500 capital; to deal in automobiles. Corporators—W. H. Forsythe, L. E. Ring, H. A. Fleig.

Minneapolis, Minn.—Minneapolis Regal Auto Co., under Minnesota laws, with \$250,000 capital. Corporators—J. P. McGuire, E. C. Noyes and others.

Wilmington, Del.—Moore Electrical & Automobile Co., under Delaware laws; with \$50,000 capital. Corporators—Rose E. Moore, Edward R. Pusey, Enoch Moore, Jr.

Indianapolis, Ind.—American Headlight Co., under Indiana laws, with \$50,000 capital; to manufacture headlights. Corporators—C. S. Stone, C. N. Elliott, H. B. Gates.

Detroit, Mich.—General Auto & Tire Co., under Michigan laws, with \$10,000 capital. Corporators—T. H. Henderson, W. H. Lindabury, Rufus Monroe, G. J. Bessenger, D. B. Neal.

Birmingham, Ala.—Drennen Motor Car Co., under Alabama laws, with \$5,000 capital; to do general automobile business. Corporators—D. M. Drennen, F. M. Drennen, H. A. Drennen.

Chicago, Ill.—Chicago Jack & Supply Co., under Illinois laws, with \$14,000 capital; to deal in automobiles and accessories. Corporators—E. L. Robinson, A. E. V. Wright, J. M. Timmons.

Columbia, S. C.—Roddey Automobile Co., under South Carolina laws, with \$10,000 capital; to deal in automobiles, etc., and do general garage work. Corporators—J. R. Roddey, J. J. Cain.

Houston, Tex.—The Auto Co., under

Texas laws, with \$10,000 capital; to conduct a general automobile and garage business. Corporators—H. T. D. Wilson, Harry Holmes, T. E. O'Neill.

St. Louis, Mo.—Banner Automobile Co., under Missouri laws, with \$2,000 capital; to manufacture and deal in automobiles and supplies. Corporators—H. F. Cartwright, R. E. Gardner, E. L. Roninger.

New York City, N. Y.—American Pedal Co., under New York laws, with \$10,000 capital; to deal in motors, engines, machines, etc. Corporators—Henry E. Cornwell, M. F. Luckenbill and others.

Oklahoma City, Okla.—Oklahoma Vulcanizing Co., under Oklahoma laws, with \$1,300 capital; to do general automobile and tire repair business. Corporators—J. B. Frank, Sam Fuesler, J. B. Fuesler.

Rochester, N. Y.—Empire State General Vehicle Co., under New York laws, with \$100,000 capital; to manufacture vehicles and appliances. Corporators—G. A. Hallister, R. M. Searle, J. T. Hutchings.

New York City, N. Y.—Munsing Motor Car Co., under New York laws, with \$500,000 capital; to manufacture automobiles, motor boats, etc. Corporators—W. H. Bursmith, M. T. Westcott, F. W. Mitchell.

Lancaster, N. Y.—Lancaster Motor Co., under New York laws, with \$2,000 capital; to manufacture motors, automobiles, engines and accessories. Corporators—George A. Davie, Frederick Howard, Odell R. Blair.

Dover, Del.—Club Car Co., under Delaware laws, with \$750,000 capital; to deal in automobiles and equipment of all kinds. Corporators—Ralph Buell, C. H. Stanton, Geo. L. Lewis, S. V. Morris, John H. McCrayon.

Newark, N. J.—East Orange Automobile & Machine Co., under New Jersey laws, with \$10,000 capital, \$3,000 of which is paid in; to manufacture, deal in and store automobiles. Corporators—L. C. Stringham, F. L. Barr, Henry Seib.

Pittsburg, Pa.—Pneumatic Tubeless Tire Filler Co., under West Virginia laws, with \$250,000 capital; to manufacture tire fillers. Corporators—C. A. Painter, E. W. Rolfe, Wm. S. Hackett; Norwood Johnson, E. J. Kent, all of Pittsburg.

Buffalo, N. Y.—Glidden Garage Co., under New York laws, with \$10,000 capital; to deal in and repair automobiles, to rent vehicles and do general accessories and supply business. Corporators—Oscar Meyer, Besie Meyer, Mary Meyer.

New York City, N. Y.—Phoenix Sight Seeing Co., under New York laws, with \$25,000 capital; to manufacture passenger vehicles propelled by motors, etc. Corporators—A. Shapiro, S. Goodman, H. Goodman, all of Manhattan, N. Y.

Elizabeth, N. J.—Vandewater & Co., under New Jersey laws, with \$100,000 capital;

to manufacture internal combustion engines, steam engines, automobiles, aeroplanes, etc. Corporators—J. Correja, F. C. Vandewater, E. Vandewater, S. R. Vandewater.

Charleston, W. Va.—Remington Standard Motor Co., under West Virginia laws, with \$1,000,000 capital; to manufacture automobiles and aeroplanes. Corporators—Philo Remington, Eli Remington, DeWitt Burne, George A. Grounds, and several bankers of Charlestown.

**Changes Among Prominent Tradesmen.**

R. M. McCormack has been appointed manager of the Philadelphia branch of the Regal Motor Car Co., of Detroit, Mich. He has been in the company's sales department for about a year.

Harry Fosdick has resigned from the Hol-Tan Co., of New York City, of which he has been the vice-president and treasurer, and which handles the Lancia car in America. He announces his intention for the immediate future of "going fishing—but not for a job."

Everett S. Benson, who for many years was identified with the Hartford Rubber Works Co., of Hartford, Conn., has returned to that company as its secretary, after having been secretary and treasurer of the G & J Tire Co., of Indianapolis, Ind., in the interim. He assumed his duties in Hartford on the 1st inst.

Harry C. Stutz has resigned as factory manager and engineer for the Marion Motor Car Co., of Indianapolis, Ind., to accept the position of president and general manager of the recently formed Stutz Auto Parts Co., of Indianapolis, which has its offices in the Industrial building. The new company is making Stutz Gear systems and transmissions.

R. W. Daniels has resigned as manager of the Studebaker branch in Boston, Mass., and the management of both the Studebaker and the E-M-F branch in the Hub has been given to Charles Addison Malley, who with Burleigh N. Crockett established the Boston agency for the E-M-F. Malley will have charge of the wholesale end of the work, while Crockett will attend to retail sales in Boston and its vicinity, and both salesrooms on Bolston street will be retained for the present.

Albert Bennett, sales manager of the Colt-Stratton Co., of New York City, in addition to handling the Cole car in the East for the Cole Motor Car Co., of Indianapolis, Ind., has taken charge of the eastern interests of the Henderson Motor Sales Co., of Indianapolis, and will supervise the sales of the Westcott "40," which is manufactured by the Westcott Motor Car Co., of Richmond, Ind. The Westcott cars will be distributed in New York state and New England by the recently organized Dunlap-Taylor Motor Co., of New York City.

**In the Retail World.**

Eugene Reid has leased the old Central garage on Pike alley, Newark, N. J., and renamed it Pullman Garage.

The Klemme Auto Co., of Davenport, Ia., has absorbed the Brandenburg Auto Co., 106 Brady street, the same city.

A two-story garage is being built for G. Pushman at 131 La Salle street, Chicago, Ill. It will be 75 x 170 feet, of brick, and will cost \$30,000.

Raymond Duntz is building a new garage at the corner of State and Robinson streets, Schenectady, N. Y. It will be 33 x 100 feet and cost about \$4,000.

A. J. Eckblad, Topeka, Kan., is equipping an automobile tire repair and vulcanizing shop at 914 Kansas avenue. Roy Eiffert will be in charge.

Benjamin Wolf is building a four-story garage, 120 x 106 feet, at the southwest corner of 23rd and Market street, Philadelphia, Pa. It will cost \$75,000.

The White Star Taxicab Co., of Chicago, Ill., is erecting a garage and repair shop at 842-844 East 40th street in the Windy City. The building will cost \$18,000.

The Bailey Motor Co. is the style under which a new concern has invaded Hazelton, Pa. The garage will be located on the site of the old Markle Bank building.

H. G. and R. G. Oliver, formerly of Holeyoke, Mass., have opened an automobile supply store in Pittsburg, Pa. They will do business under the style Oliver Brothers.

The Lake Motor Car Co., Kansas City, Mo., has moved from 3320-3322 Main street to 34th street and Broadway. The company will continue to handle Stearns and Premier cars.

John and Henry Kuhns have formed a partnership under the style Kuhns Bros. and opened a garage in Youngstown, Ohio. They are located at the corner of Front and Phelps streets.

Work has been started on the new four-story garage to be occupied by the Free-land Brothers-Ashley Co., and the Apperson sales agency, at 12th and Farnam streets, Omaha, Neb.

Lancia cars will be featured in the new garage and salesrooms opened by Albert De Dryer, under the style the Franco-American Auto Co., at 10 Green street, Jamaica Plain, Mass.

William Caskey, owner of the automobile garage on Juliana street, near Sixth street, Parkersburg, W. Va., has sold out to Pratt and Lacy, of Pittsburg; they will continue the business.

Charles E. Myers, of Washington, D. C., has opened a new salesroom at 1429 L street, where he will display Elmore cars. The building is three stories in height and is said to have cost \$50,000.

The Kelly Automobile Co., Youngstown,

O., will open its new garage at 221 Chapel place about August 1st; the building is fireproof, of concrete, and will serve as a background for Henry cars.

The Owners' Motor Co., of Atlanta, Ga., is the style of a new concern which has established salesrooms and a garage at 349 Peachtree street, in the Southern city. Packard cars will be handled.

Oliver J. and Robert Hatcher are constructing an automobile garage in Adams street, between Seventh and Eighth streets, Springfield, Ill. The building will be four stories in height and will cost \$20,000.

Hatboro, Pa., is to have its first garage. G. C. Seidel is building it on North Broad street, near the Logan station. The structure will be one story in height, 50 x 80 feet, and will be known as the Logan Garage.

Under the style the Radcliff Motor Car Co., a new concern has opened up in Louisville, Ky. Its salesrooms are at 916 South Third avenue, where Stevens-Duryea cars will be featured. C. A. Radcliff is the manager.

Two alarms were necessary to control an ugly blaze which gutted the big establishment of the Portland Automobile Co., Portland, Me., last week. M. B. Gay, manager of the garage, fixed his loss at about \$2,500.

The Archey-Atkins Co. is the style of a new concern which just has been formed at Indianapolis, Ind. Permanent headquarters of the new concern are at 425 North Meridian street, where Pierce-Arrows will be handled.

Another addition to the large number of garages in Louisville, Ky., was made last week, when the Hite Bowman Co. opened its new place on Fourth avenue near Oak street. The structure is of brick and tile, measures 67 x 80 feet, and cost \$9,000.

The Chicago Marion Co., which had been located on the north side of the City by the Lake, has found it necessary to move to more commodious quarters on "automobile row." The new building is three stories high and is located at 2400 Michigan avenue.

The good showing of the Moline cars in the Glidden tour was responsible for the forming of the Moline Sales Agency, 724 Wainwright building, St. Louis, Mo. H. P. Webb, Arthur Surridge and Walter von Steiger are the leading spirits of the new enterprise.

Damage amounting to over \$1,500 resulted from a fire in the garage and repair shop of the Automobile & Vulcanizing Works, at the corner of 15th and Holmes streets, Kansas City, Mo. M. H. Norton, the owner, states that his stock was only partly insured.

The old foundry building on the east side of Broad street between Buttonwood and Hamilton streets, Philadelphia, Pa.,

will be remodeled into a large automobile garage at a cost of \$20,000. The structure will measure 130 x 120 feet, and will be occupied by Martin E. Greenhouse.

The firm of Nute & Keena, Seattle (Wash.) agents for the packard cars, has been dissolved. J. T. Keena, junior member, bought out his partner's interest and will continue the business along the same lines. A. P. Nute has quit the automobile business to enter the lumber industry.

Making its own electric light and power by means of a powerful gasoline engine, the new garage of Beaver & Beaver in North Logan street, Lincoln, Ill., has been opened for business. An electric battery charging plant will be maintained in connection with the gasoline repair shop.

Selling second hand automobiles by photograph is to be the main feature of the Western Motor Car Co., which has established offices and a garage on South Jefferson street, Springfield, Mo. A. J. Leonard, formerly president of the Leonard Hardware Co., is the owner of the business.

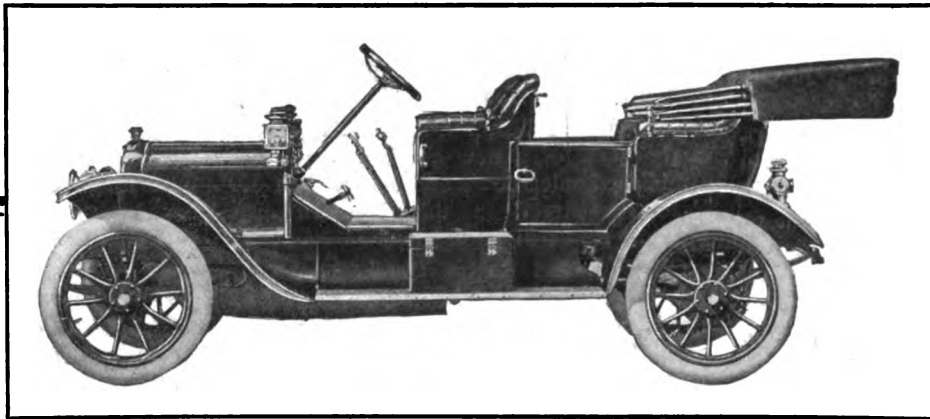
Motor car dealers in Hutchinson, Kan., have organized as the Hutchinson Automobile Dealers' Association and are planning to give "the biggest automobile show at the Kansas state fair this fall that the state has ever seen." Edward S. Moore, of the Taylor Motor Co., heads the organization.

Fifteen automobiles were destroyed in the fire which occurred in the Pacific Garage, 172 Pacific street, Brooklyn, N. Y., on July 9th. Defective insulation of electric wires is given as the probable cause of the blaze which caused damages of about \$75,000. The fire was one of the worst in Brooklyn in recent years.

T. R. Brader & Son is the style of the new firm which has bought out Wm. Cunningham's interest in the garage at Storm Lake, Ia. Cunningham, who is known as the first man to engage in the automobile business in Iowa, has moved to Oklahoma City, Okla., and will open an aeroplane factory and repair shop there.

George F. Reim and William R. Drummond have formed the Cadillac Co. of Omaha and opened a salesroom and garage at 2050 Farnam street, Omaha, Neb. Drummond is the owner and manager of the Drummond Carriage Co., at 18th and Farnam streets, which handles White cars. The new company will deal in Cadillac cars exclusively.

What is claimed to be the "most modern garage in the Northwest" just has been opened by the Pacific Motor Car Co., in Spokane, Wash., at the corner of First avenue and Maple street. The inner dimensions of the salesrooms are 40 x 40 feet, while a large garage and repair department are in the rear. The building is fireproof, electrically lighted, with tiled floors and all modern improvements.



# NINETEEN-ELEVEN WHITE GASOLINE CARS

**O**UR new models for 1911 are ready—the gasoline-driven cars of the standard type of engine for reliability and durability.

## A Good Engine

It always has been our ambition to build the most reliable and durable gasoline engine—cylinders cast en bloc—the long stroke and the elimination of external manifolds were the first steps.

## Well Designed

The simplification of the design making the engine so easy to operate—so easy to understand—so easily accessible, was the second step toward satisfaction of users.

## Well Made

Then we built our engine and every part of our car just as good as we knew how—as good as the most up-to-date science would permit. The frames, the gears, the bearings—all the details, are of a quality and type of material unsurpassed, regardless of price.

## The Results

Our gasoline cars have made remarkable records in the hands of owners both for ruggedness and economical up-keep.

The White car is the car for the average man—for the man who wants to know that maintenance expenses will not make the car prohibitive for him. Catalogues, owners' testimonials and other literature gladly sent upon request.

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# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO





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#### The Use of the Clutch Brake.

It is gratifying to observe the increase in the number of clutch brakes applied to stock cars. While theoretically there should be no need for such an appliance, the fact remains that about ninety-nine clutches out of a hundred will "spin" under certain conditions instead of quickly coming to rest. The fact that the conditions which bring about the difficulty of clutch dragging arise not from faulty design so much as from abusive treatment is what emphasizes the importance of such a device.

No matter how carefully a clutch may be designed with a view to preserving its alignment at all times, preventing it from engaging at certain points and not in others, springing, bending or binding, the fact remains that careless operators will neglect to oil its bearings for long periods, that they will feed it an improper grade of oil now and then, and that they will neglect to give it due attention when it is found to

be working improperly. The difficulty of clutch spinning, which is to say the indication that some sort of clutch brake is required, of course, is most noticeable with clutches such as those of the plain cone type, in which the live element possesses considerable inertia of its own. It may be said, however, that no form of clutch is absolutely free from the need of a braking device when liable to abuse.

The thing may be contrived so simply that it is rather surprising that car builders in general have been as backward as they have in adopting it as a standard feature. In most cases all that is required is a small spring-controlled pad so positioned that a collar attached to the slideable live member of the clutch will bear against it when the pedal is depressed. In other cases more elaborate mechanism is demanded, but even so, it can be of so light a nature and so simply constructed as to throw no very serious burden on the manufacturer's shoulders.

The advantage of the clutch brake is that it retards the clutch shaft sufficiently to be of very material assistance in changing gears. By slowing the first motion shaft before the gears which are about to be meshed are brought together, it permits the change to be made silently and without burring the ends of the teeth. Since the retarding effect is proportional to the amount of pressure exerted on the clutch pedal, it follows that the skilful driver may regulate it exactly to the requirements of the change; that is to say, that shifts from higher to lower speeds may be made much more quickly and easily with than without such a device. The most important argument in favor of the clutch brake, however, is that it relieves the ends of the gear teeth of considerable otherwise necessary strain at times when the clutch is not working properly. One look at the gears in an ancient and abused transmission usually is enough to furnish conviction that the clutch brake is a genuine necessity.

#### Upholstery that Soils Clothing.

In this advanced stage of the industry it is strange that it should be necessary to call attention to the importance of equipping cars with upholstery of the sort which does not crock and which is not likely to catch and retain the dust. Nevertheless not a few complaints are being heard of cars in which this fault is quite pronounced. Either through carelessness or false econ-

omy in selecting the upholstering materials, or else as a result of the use of improper cleaning compounds in the garage, it happens that the light-colored clothing of passengers frequently bears unmistakable marks of the car at the end of a run.

It may be argued, of course, that motor-ing is more or less a dusty and dirty pas-time, and that motorists invariably should go prepared for such contingencies. The growing use of machines of all types for about-town use, especially by ladies when shopping or calling, however, indicates the importance of giving due attention to this point. Whether in the upholstery itself, the dust covers for the cushions, the top dust cover or any other portion of the appointments of the tonneau, all leather should be chosen and finished with a view to preserving its flexibility and color without running any risk of smooching. The same consideration also should be given to the subject by garagemen who, through eagerness to take good care of the cars under their charge, occasionally permit their employes to use cleaning fluids which while quick acting in their immediate influence are injurious in their lasting effects, and above all tend to catch the dust.

#### The Advance of the Commercial Car.

It must be evident even to the most casual observer that the use of the commercial vehicle has increased by leaps and bounds within the past six months. Those who are familiar with the workings of the automobile industry know that the growing prominence of the business motor car results in part because manufacturers and dealers are putting forth an amount of forceful and concerted effort such as never before has been seen in this line, and in part as a natural result of the long period of incubation which the germ of the commercial vehicle idea has undergone. But only a few of the better established makers and their sales representatives are in a position to judge of the real strength of the commercial vehicle situation at the moment. From such positive factors in the industry comes the assertion that the market is affording that most comforting token of assurance that could be desired; commercial vehicle users, after one or more years of trial service are increasing their equipments by substantial amounts.

By invoking the powers of advertising and the almost coercive influences of such newspaper publicity as the automobile trade

## COMING EVENTS

always has had the more or less mysterious power to inspire it is possible to create a one-time market for almost anything under the heavens. Such a market may be quite as much a credit to creative salesmanship, the hypnotic suggestion of the printed and spoken word, as it is indicative of real value in the commodity offered. But when the demand begins to accelerate and the market manifests an inclination to repeat itself there is assurance that back of the "market motive force" is a recognized potential of necessity. It is such a demand that the commercial vehicle is beginning to invoke.

While in the minds of many observers the commercial branch of the industry still is regarded as being in its swaddling clothes, it cannot be denied that it has reached pretty lusty proportions. One thoughtful student of its progress avows that there are at present not far from twenty thousand commercial cars in use in this country, representing an investment of sixty million dollars in round numbers. In view of the present strength of the pleasure car, and of the acknowledged field for exploitation which transportation offers the commercial motor, however, this is no more encouraging than is the bare fact that many business men, after serious trial of trucks and delivery wagons in their respective undertakings have commenced to call for more of the same sort. That fact alone brands the commercial car as a fixture in the commercial world.

Secretary of State Koenig, of New York, performed a crafty stroke in making a loud noise regarding his intention vigorously to enforce the new Callan bill and to subject chauffeurs to a rigorous examination. The noise served to distract attention from the fact that a large number of the examiners whom he appointed merely are political camp followers. While he leavened the mass with a few capable and well known experts, if any of the politicians for whom Koenig has found soft berths know the difference between an accelerator and a speed lever, or ever have displayed special knowledge or fitness for their jobs, it would be interesting to have them singled out. It will be equally interesting to discover how much money will be left for or will be devoted to road improvement after the camp followers and "other legitimate expenses" have been "taken care of" in the way peculiar to professional politicians.

July 14, Newport, Ind.—Newport Motor Club's second annual hillclimb.

July 15-16, Dayton, Ohio—Automobile Club of Dayton's race meet.

July 16-18, New York City—Motor Contest Association's reliability tour to Catskill, N. Y., and hill climb on Clove mountain.

July 16, Wheeling, W. Va.—Ohio Valley Automobile Club's race meet at Island track.

July 18-22, Milwaukee, Wis.—Wisconsin Automobile Association's first annual endurance test for "Milwaukee Sentinel" trophy.

July 22-27, St. Paul, Minn.—Minnesota State Automobile Association's second annual reliability run for the "Dispatch" trophy; 660 miles.

July 23, Brighton Beach, N. Y.—Motor Racing Association's race meet on mile dirt track.

July 23, Atlanta, Ga.—Atlanta Automobile Association's race meet on Speedway.

July 24, New Braunfels, Tex.—San Antonio Automobile Club's hill climb.

July 28-29, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Club third annual interclub reliability team match.

July 30, Long Island Motor Parkway, N. Y.—Motor Parkway Inaugural Sweepstakes.

July 30, Salt Lake City, Utah—Salt Lake "Telegram's" third annual hill climb.

July 30, Wildwood, N. J.—North Wildwood Automobile Club's race meet on Wildwood Speedway.

August 1, Minneapolis, Minn.—Minneapolis Automobile Club's reliability run.

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 9-10, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 15, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 15-19—Start of second annual Munsey Historical Tour from Philadelphia, and terminating at Washington, D. C.; 1,700 miles.

August 17, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 19-20, Brighton Beach, N. Y.—

Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

September 2, 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 15, 16 and 17, Lowell, Mass.—Lowell Automobile Club's road race.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint racemeet at Fair Grounds track.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 21-23, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 15, Long Island Motor Parkway, N. Y.—Second annual Grand Prize race.

November 5, Phoenix, Ariz.—Maricopa Automobile Club's Los Angeles-Phoenix road race.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 17-24, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers tenth annual show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers tenth annual show in Coliseum. Second week devoted to pleasure and commercial cars, accessories and motorcycles.

March 4-12, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

## SURPRISES IN PLAINFIELD CLIMB

Rankin and Winslow Upset "the Dope"—  
DePalma Takes Free-for-All—Sartorial  
Honors to a Sign Painter.

As usually is the case when he drives the big 200 horsepower Fiat car, Ralph DePalma secured stellar honors in the second annual hill climb promoted by the Plainfield (N. J.) Automobile Club and held on Watchung mountain course near that city on Saturday afternoon last, 9th inst. Although DePalma gave a highly sensational performance, he did not have to exert himself to win in the free-for-all class and to

dusty highway. It was worth a trip to Plainfield to witness that performance.

E. B. Libey, in a Hupmobile, opened the ball by running away with the class for cars selling at \$800 and under. J. Kottenridge, Mitchell, and W. H. Hobbie, Maxwell, were the only drivers to reach the top in the event for cars between \$800 and \$1,200. Kottenridge won in 2:04½.

Naturally the free-for-all event attracted most attention, and it also resulted in some surprises. DePalma was regarded as the probable winner, which ultimately he proved to be, but the crowd did not expect E. Rankin, the Chalmers-Detroit pilot, to defeat S. Martin, in the Hought-Rockwell. Martin had made some phenomenal performances in preliminary practice, and

301-400 cubic inches class without any real opposition, while Martin, in the larger car, defeated Rutherford and Winslow, in their Stearnses, in the class for cars between 450-600 cubic inches. His time—1:22¾—was the same as in the free-for-all.

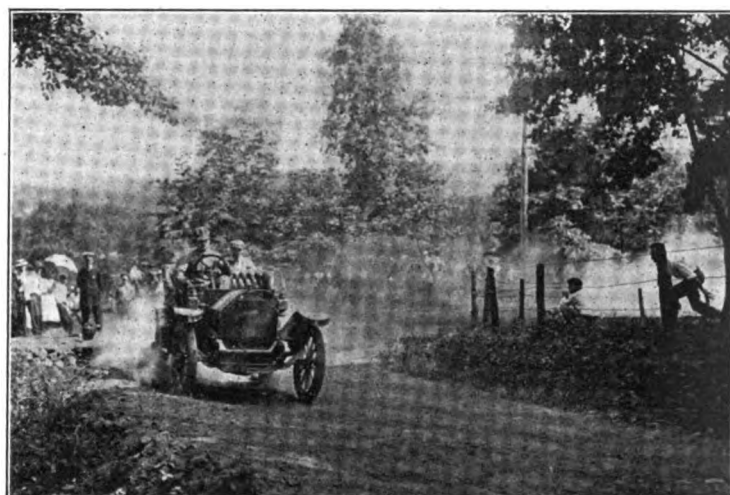
One of the closest contests of the day was the free-for-all for gasoline cars, with amateur drivers up. Winslow and Rutherford were the only entrants, and as Rutherford had made the fastest time in last year's climb he was regarded as a "sure thing." Winslow did not so regard him, however, and defeated the New Yorker by three-fifths of a second. The summary:

800 and Under.

- 1 E. B. Libey, Hupmobile.....2:00
- 2 J. S. Gray, Schacht.....2:21¾



"ACTION" ON ONE OF THE PICTURESQUE TURNS



KOTTENRIDGE SWINGING WIDE ON A CURVE

establish a record for the hill. In the event named the daring Italian cut around the corners without shutting off, and reached the top of the five-eighths mile steep upgrade in 1 minute 20 seconds. The previous best time of 1:28 was established last year by Jack Rutherford, in a Stearns.

The climb last Saturday far surpassed the club's initial attempt last year. A large crowd was in evidence and they apparently enjoyed the performances and the cars as well as the several humorous incidents that occurred during the afternoon. One man appeared on the course with a silk hat and the conventional frock coat. He was much in demand early in the proceedings. Some thought he was the mayor of the town, while others imagined such clothes must place him in the governor class. It was only when he was discovered painting the numbers on the cars that his real status was made plain. It was a local sign painter dressed in his "Sunday best." Another funny incident was when someone suggested that a little water on the course might allay the dust. One of the local patriots, determined that nothing should be left undone to insure the success of the meeting, rushed to a nearby farmhouse, borrowed an ordinary garden sprinkling pot and let the few quarts trickle on the

when he was clocked in 1:22¾ the spectators thought he had cinched second place.



THE ARISTOCRATIC-APPEARING  
SIGN PAINTER.

Rankin, however, came along and after an admirable drive was timed in 1:22¾, a most creditable performance. He later won the

- 3 A. C. Dam, Hupmobile.....2:40

\$801 to \$1,200.

- 1 J. Kottenridge, Mitchell.....2:04½
- 2 W. F. Hobbie, Maxwell.....2:10½

\$1,201 to \$1,600.

- 1 Joe Taylor, Correja.....1:40¾
- 2 F. McCarthy, Mitchell.....1:57¾

\$1,601 to \$2,000.

- 1 Phile Hines, Buick.....1:32
- 2 Howard Bauer, Oakland.....1:35¾

Free-for-All.

- 1 Ralph DePalma, Fiat.....1:20
- 2 E. Rankin, Chalmers-Detroit.....1:22¾
- 3 S. Martin, Hought-Rockwell.....1:22¾

161-230 Cubic Inches.

- 1 C. Jones, Buick.....1:40
- 2 W. R. Roden, Krit.....2:01½
- 3 W. R. Roden, Krit.....2:03½

231-300 Cubic Inches.

- 1 H. S. Lake, S. P. O.....1:31¾

301-450 Cubic Inches.

- 1 E. Rankin, Chalmers-Detroit.....1:27¾
- 2 F. H. Clapp, Berkshire.....1:29¾
- 3 Phil Hines, Buick.....1:31¾

451-600 Cubic Inches.

- 1 S. Martin, Hought-Rockwell.....1:22¾
- 2 J. A. Rutherford, Stearns.....1:29¾
- 3 C. W. Winslow, Stearns.....1:30

Gasolene Cars—Amateur Drivers.

- 1 C. W. Winslow, Stearns.....1:28¾
- 2 J. A. Rutherford, Stearns.....1:29¾

**HARROUN ALMOST THE WHOLE SHOW**

**Indiana Crack Bags Four Firsts at Louisville—Endicott Locks Hubs and Has a Narrow Escape.**

Ray Harroun, the intrepid Marmon pilot, again showed his skill and speed on Saturday last, July 9, at Louisville, Ky. The meet was to have been a two days' affair at the mile Churchill Down dirt track, but rain caused a postponement of the second instalment until Saturday next, 16th inst. A large crowd witnessed the first day's racing, however, and Harroun gave them plenty of opportunity to marvel at his daring. Of the five events in which he entered Harroun and his Marmon car finished first in all but one race, that being a handicap, in which he started from scratch.

As a result of the accident at the Indianapolis Motor Speedway in which Thomas Kincaid lost his life, Johnny Aitken, his team mate, did not compete. He and his big National car were expected to furnish warm work for Harroun.

The track was slow and dusty and prevented any phenomenal times, but the races were keenly contested. The dust was responsible for the only mishap of the afternoon. In the second race, a 5 miles whirl for cars in the 161-230 cubic inches class, Harry Endicott, in an E-M-F, was running bonnet to bonnet with Edmunds in a Cole, William Endicott's Cole throwing up a cloud of dust a few yards in front. Suddenly there was a crash and when the dust cleared away the E-M-F was found to be overturned and Endicott lay underneath it. The official car reached the scene a few seconds later and Endicott was released from his ticklish position little hurt except for a few bruises. It is presumed that he locked hubs with the Cole car, when the dust made it impossible to see.

One of the best events of the day was the 25 miles race in two classes, one for cars from 161 to 230 cubic inches and the other for machines exceeding the 230 displacement. As the cars were all started together it made an interesting sight, as the faster cars lapped the smaller and less speedy. In the larger classification Harroun defeated Dawson, his team mate, by covering the distance in 28:33, while the smaller class went to Endicott, in the Cole car. The latter also finished first in the 5 miles for cars of the 161-230 category. The summaries:

Five miles, under 160 cubic inches—Won by McCormick, Herreshoff; second, Emmons, Herreshoff; third, Smith, Herreshoff. Time, 6:45.

Five miles, 161 to 230 cubic inches—Won by Endicott, Cole; second Edmunds, Cole. Time, 61:17.

Five miles, 231 to 300 cubic inches—Won

by Harroun, Marmon; second, Hughes, Parry. Time 5:56.

Five miles, 301 to 450 cubic inches—Won by Harroun, Marmon; second, Dawson, mon; third, Gilchrist, Stoddard-Dayton. Time, 6:05.

Five miles handicap, up to 300 cubic inches—Won by Emmons, Herreshoff; second, Hughes, Parry; third, Endicott, Cole. Time, 6:27.

Five miles free-for-all—Won by Harroun, Marmon; second, Dawson, Marmon; third, Hughes, Parry. Time, 5:49½.

One mile against time—By Harroun, Marmon. Time, 1:05½.

Five miles handicap, free-for-all—Won by Hughes, Parry; second, Dawson, Marmon; third, Harroun, Marmon. Time, 6:05.

Twenty-five miles class race—Class A (161-230 cubic inches), won by Endicott, Cole; second, Edmunds, Cole. Time, 31:42. Class B (over 230 cubic inches), won by Harroun, Marmon; second, Dawson, Marmon; third, Gilchrist, Stoddard-Dayton. Time, 28:33.

**Californians to Try "Selling Races."**

While the suggestion of selling races for automobiles, fashioned after the horse races of that kind, frequently has been made, it has been left for the San Francisco (Cal.) Automobile Dealers' Association to put this suggestion into actual practice. In order to eliminate "doctored" and specially built cars, and yet keep the event practically "open to all," it has been decided to make the races on the Santa Monica course in September next "selling" events; the winner of each event will be offered for sale at auction immediately after the race, with the list price of the car as the minimum bid. So as to prevent owners of winning machines from buying them back at an exorbitant price, and thus claiming the cars sold for a high figure, each dealer who may bid in his own car must pay into the treasury of the association the difference between the list price and the auction price, if the latter should exceed the catalog figures.

**Denver Building a \$50,000 Speedway.**

Of the epidemic of speedways that has made newspaper talk, at least one is to become a reality—the Denver project. The construction work already has started and is expected to be completed by August 6th, when the first race meet will take place. The track, which is located at Sable, Col., eight miles from Denver, on the Kansas & Pacific railroad, will be a 3¼ miles oval, affording a mile straightaway. It will be 150 feet wide on the homestretch and 100 feet on the turns and backstretch. The course is being constructed by the Denver Motor Speedway Association, which was recently incorporated with a capital of \$50,000. The officers are: Fred Manley, president; Frank M. Headlee, secretary; Donald P. Hogan, treasurer.

**TEXANS INSTITUTE NOVEL RACE**

**"Speed Violators' Chase," they Term it, and it Proves Realistic—Seven Events Decided at Dallas Meet.**

With 6,000 people in the stands, not counting the occupants of 112 automobiles drawn up in imposing array in the infield, the meet of the Dallas (Tex.) Automobile Club held at the fair grounds mile track on July 4th was the success anticipated. W. H. Bertrand, driving a Simplex car, made the fastest time of the day, covering a mile in 49½ seconds, which is said to equal Barney Oldfield's record on the same course.

E. O. Sluder, driving a Maxwell car, won the first event—for cars of 10 to 20 horsepower—and Sacksteder, in the same kind of machine, defeated R. M. Hardeman, Brush, in a 3 miles match. In the 5 miles stripped roadster race, T. B. Funk, Overland, had an easy victory.

In the three miles race for stock touring cars, B. W. Lindsley in a Thomas "Flyer" had an easy time defeating Ed. Sluder in a Columbia, finishing the distance in the slow time of 5:02¾.

One of the events that excited a great deal of attention was the "speed violators' chase." It was designed to show the spectators just how a chase between an automobile driver and a motorcycle cop looks. Clarence Linz came down the stretch in an Austin car and refused to stop when signaled by "Policeman" Ford. The latter promptly hopped his motorcycle and gave chase. The "cop" had to ride all out for more than two miles before he brought the "culprit" before the judges. In this case the sentence took the form of a silver cup presented to Ford. The summaries:

Five miles, 10 to 20 horsepower—Won by E. O. Sluder, Maxwell; second, J. Stiff, Hudson. Time, 6:18.

Three miles match—Won by A. Sacksteder, Maxwell; second, R. M. Hardeman, Brush. Time, 6:02¾.

Five miles for stripped roadsters—Won by T. B. Funk, Overland; second, Joe Girard, Locomobile; third, Clarence Linz, Kissel Kar. Time, 5:47.

"Speed violator's chase"—Won by "Policeman" Ford on motorcycle; second, Clarence Linz, Austin car. Distance, 2 miles.

Three miles for touring cars—Won by Con Moseley, Kissel Kar; second, W. A. Fosdick, Moline; third, W. L. Hancock, Regal. Time, 4:15½.

Three miles for stock touring cars—Won by B. W. Lindsley, Thomas; second, Ed. Sluder, Columbia. Time, 5:02¾.

Five miles free-for-all—Won by W. H. Bertrand, Simplex; second, T. B. Funk, Overland; third, Joe Girard, Locomobile; fourth, C. Linz, Kissel Kar. Time, 5:38½.



## CONTEST UP COLORADO MOUNTAIN

**Cars Ascend a Road with Eight Switchbacks at Mount Morrison—Free-for-All Has to be Run Twice.**

What was probably the most exacting hill climb ever held in America took place on Mount Morrison, near Denver, Col., Sunday afternoon last, 10th inst. The chief laurel winner of the day was William Thonney in a Ford car, who won the free-for-all and made the fastest time in the class events.

Although the course was only 17-16 miles in length, yet in that distance the cars had

except the free-for-all. William Thonney and Jack Daniels, in another Ford, were second in 5:52½.

A Reo and an Oakland contested the class for cars under \$1,500, and the former, piloted by W. E. Hodgson, with Jack Daniels also aboard, made the trip without incident in 5:43½, winning the cup easily. F. A. King and R. Berry, in an Inter-State, took the event for cars above \$1,500; their time was 5:35½.

In the free-for-all event a dispute arose over the correctness of the time, and all the cars were required to make a second ascent. William Thonney, Ford, was clocked in 5:16½—the fastest time made. McDonald, in the Reo, was second in 5:23½. It was in this event that the Ford

Hodgson and Jack Daniels, Oakland, 5:43½; second, James McDonald and Steven Brown, Reo, 6:45.

Class D, above \$1,500—Won by F. A. King and R. Berry, Inter-State, 5:35½.

Electrics—Won by O. P. Fritchle, Fritchle, 20:00.

Free-for-all—Won by William Thonney, Ford, 5:16½; second, James McDonald, Reo, 5:23½.

### Woman Mystery in McKeesport Climb.

A. G. Somerville, of Pittsburg, Pa., created the sensation of the Old Home Week celebration at McKeesport, Pa., on Wednesday, 6th inst., in the automobile hill climbing contest which formed the most exciting feature of the prodigals' tall doings. Somerville, who drove an Inter-State car in the free-for-all class, and not only won that class but made the fastest time of the meet, apparently is a publicity sharp who will make Colonel Bill Annanias Pickens look to his laurels.

Just a second before the starter gave Somerville the signal to start, a handsome, stylishly-dressed young woman deposited herself in the seat beside the driver. McKeesport stood and gaped. Could it be possible that a woman would dare that "perilous" drive? It was possible, as they found out, and the lady really seemed to enjoy the sensation she created for she waved her gloved hand at lined-up marvelling McKeesport. Somerville disclosed his space-getting ability when he refused to tell the McKeesport reporters the lady's name.

The hill upon which the climb was held was exactly one mile in length and had three sharp turns, so that the time of Somerville—1 minute 41 seconds—was a creditable performance. Somerville received two cups—one for making the fastest time at the meet and the other for winning the free-for-all class. Harry Chamberlain, Buick, was second, in 1:50. Chamberlain also won Class D in 2:12, which was much slower than the winning Ford's time in Class E. The fastest time for touring cars was scored by a Kline-Kar, entered by the Kline Motor Co., of Wilkinsburg, Pa. The Kline won by nearly 30 seconds, when it romped up the incline in 2:01. The summaries:

Free-for-all—Won by A. G. Somerville, Inter-State, 1:41; second, Harry Chamberlain, Buick, 1:50; third, Ford, 1:55; fourth, Vestal, 2:02; fifth, Premier, 2:11; sixth, Oakland, 2:15; seventh, Packard, 2:15; eighth, Kline, 2:16; ninth, tie between Kline and Hudson, 2:28.

Class B—Won by Kline, 2:01; second, C. H. Martin, Premier, 2:30.

Class D—Won by Harry Chamberlain, Buick, 2:12; second, tie between Kline and Oakland, 2:15; third, Auburn, 2:22; fourth, Inter-State, 2:25.

Class E—Won by Ford, 2:03; second, Ford, 2:33.



F. A. KING (INTER-STATE) LEADING HIS CLASS IN DENVER HILL CLIMB

to ascend 1,000 feet, and it is the last part of the climb that is the most difficult and also the most dangerous. The mountain rises precipitately at that point, and in order to make the ascent eight switchbacks have been made in the road in the last 1,200 feet, and in this short distance the rise is 265 feet. Until the cars reached the switchbacks they all proceeded without trouble.

The meet was scheduled to start at 2 p.m., but delays held up the start until 3 o'clock, when the little Brush runabout, carrying Mr. and Mrs. F. A. Trunkle, got the signal to start in the under \$500 class. There were many who did not expect the baby machine ever to reach the top, but a surprise was in store for them. The Brush chugged steadily to the top in 13 minutes 55 seconds.

Fred and Stewart Alkire, in a Ford, were the first starters in Class B, for cars under \$1,250, and they reached the top in 5:17½, the best time made in any of the events

car, driven by Alkire, met its Waterloo. He was rounding a curve at fast speed when a soft piece of ground caused the car to upset. Alkire escaped injury and repaired the damage on the spot, later driving it back to the starting point and thence back to Denver.

The climb was held under a sanction from the American Automobile Association and the trophies in the class events were presented by John Brisbane Walker, proprietor of the Mount Morrison Summer Resort Co. The cup in the free-for-all was donated by the Great Western Oil Co. The summaries:

Class A, under \$500—Won by Mr. and Mrs. Fred A. Trunkle, Brush. Time, 13:55.

Class B, under \$1,250—Won by Fred and Stewart Alkire, Ford, 5:17½; second, William Thonney and Jack Daniels, Ford, 5:52½; third, Vincent Colby and Edward Maxwell, Oakland, 7:13½.

Class C, under \$1,500—Won by W. E.

**HANDICAP EVENTS THE FEATURES****Dawson Takes one from Scratch and With Harroun and Ellicott Proves a Headliner at Cincinnati.**

Ray Harroun and Joe Dawson, the "Marmonese twins," easily were the headliners at the race meet on the Latonia mile track, near Cincinnati, Ohio, on Sunday last, 10th inst. Harroun scored three firsts, while Dawson took two firsts and was second four times. W. Endicott, in a Cole, took two firsts and a third, and Stevens, Emmons and Roberts also finished "in the money."

The Cincinnati meet, which was one of the circuit meetings being promoted by Walter Wellman and Homer George, was unusually interesting to the 3,000 spectators who journeyed out to the old track. Previous meets held in the vicinity were of the topheavy Oldfieldian sort.

Two handicap races were the features of the card. In the event for cars up to 300 cubic inches, five cars made the fight, with Dawson on the honor mark. Dawson's splendid handling of his speedy car elicited much applause as one by one he overhauled and passed the cars in front and won handily.

The handicaps proved too great for Harroun, the scratch man in the free-for-all handicap. Roberts, in the Herreshoff, was given 40 seconds and he made good his allowance, but another half mile would have resulted in a victory for Dawson, who started with 5 seconds. Harroun passed several cars, but finished fourth. He, however, won the free-for-all scratch from Dawson and the class race for cars exceeding 230 cubic inches. The summaries:

Five miles, under 160 cubic inches—Won by Emmons, Herreshoff; second, McCormick, Herreshoff; third, Smith, Herreshoff. Time, 6:14½.

Five miles, 161-230 cubic inches—Won by W. Endicott, Cole; second, Edmunds, Endicott; third, H. Endicott, E-M-F. Time, 6:11½.

Five miles, 231-300 cubic inches—Won by Dawson, Marmon; second, W. Donnelly, Cino; third, Ramey, Detroit-Dearborn. Time, 6:00¾.

Five miles, 301-450 cubic inches—Won by Harroun, Marmon; second, Dawson, Marmon; third, Gilchrist, Stoddard-Dayton. Time, 5:57¾.

Five miles handicap, up to 300 cubic inches—Won by Dawson, Marmon (scratch); second, Emmons, Herreshoff (0:30); third, W. Endicott, Cole (0:20). Time, 6:23¾.

Five miles for cars owned by residents of Kentucky, Indiana and Ohio—Won by Stevens, Matheson; second, Gilchrist, Stoddard-Dayton; third, W. Donnelly, Cino. Time, 5:41¾.

Five miles free-for-all—Won by Harroun, Marmon; second, Dawson, Marmon; third, Stevens, Matheson. Time, 5:23¾.

Five miles handicap, free-for-all—Won by Roberts, Herreshoff (0:40); second, Dawson, Marmon (0:05); third, W. Endicott, Cole (0:20). Time, 5:50¾.

Ten miles class race—Class A (161-230 cubic inches)—Won by W. Endicott, Cole; second, H. Endicott, E-M-F. Time, 12:56¾. Class B (exceeding 230 cubic inches)—Won by Harroun, Marmon; second, Dawson, Marmon. Time, 12:06¾.

**Flanders Now Under the Mexican Flag.**

The Flanders "Under Three Flags" car, which left Quebec, Canada, June 5th, reached the Mexican border on July 5th, crossing the Rio Grande river on the bridge at Laredo, Texas. W. J. Lane, who had been driving the car, has been suffering the tortures of rheumatism, and it was planned that he should return to Detroit from Laredo, but at the last moment he insisted on being helped into the car and had a hand on the steering wheel when the Mexican flag was shifted to the place of honor on the Laredo bridge. Lane's companion, Paul H. Bruske, was doing the gear shifting, but Jesse Applewhite, a Texan, has been engaged to handle the car on the run to Mexico City, although Lane insists that he will follow by train and drive it into that city.

**Ohio Doctor's Remarkable Mileage Record.**

Dr. A. E. Evans, of Columbus, Ohio, believes, and not without reason, that he holds the "electric vehicle record." Since April, 1905, he has driven the same car—a Studebaker—87,715 miles by odometer record, and this great distance does not include the distance traveled, 30 to 35 miles per day, during a period of five weeks when the odometer was out of commission. Dr. Evans has made affidavit to the correctness of this record, which does not, however, represent the full amount of traveling the busy Ohio physician has done, for in addition to his old Studebaker, he has had another electric in service at all times and recently has added a gasoline Studebaker to his stable.

**Confetti Throwing Causes an Arrest.**

That throwing of confetti to mark the route of a contest constitutes a violation of law in some places was unpleasantly brought to the attention of the men who marked the turns on the course of the Philadelphia Automobile Club's recent contest to Lake Hopatcong, N. J. They were arrested in Morristown, N. J., for violating an ordinance which prohibits the littering of the streets with paper or other material. The magistrate was lenient, however, and under the circumstances released the offenders after they deposited \$1 to pay for the hiring of a man to pick up the scraps of paper they had distributed.

**FOR FEDERAL REGISTRATION LAWS****A. A. A. Decides to Continue the Fight—Bill, in Amended Form, to be Introduced in Congress.**

Despite the failure of two successive Congresses to give the measure serious head, the American Automobile Association is in no wise discouraged and again will introduce its Federal registration bill, but in somewhat amended form. This was determined at the July meeting of the A. A. A. executive committee, which occurred in Boston last week, when the following resolutions bearing on the subject were adopted:

"Resolved, That it is the sense of the executive committee assembled at Boston, July 7, that the A. A. A., through its state organizations, local clubs, and individual members, should renew their efforts toward securing the passage of the Federal Registration bill, though in an amended form to harmonize any difference of opinion which may have arisen since because of national discussion of the measure and added reasons for adoption since its first presentation to Congress.

"Resolved, That it is the belief of this committee that a most potent reason for securing a Federal Registration law now exists in the present inability of the United States to enter into the recently-concluded international agreement providing for the issuance of 'international plates of identity' which permit the uninterrupted passage from country to country without hindrance insofar as it refers to the identification numbers of a car or the right of its operator to drive.

"Resolved, That this act should not interfere unduly with any state that has granted or may grant reciprocity upon its own initiative to the motorists of other states."

In addition to receiving routine reports, the Boston meeting elected Dr. Charles L. Bonifield, of the Automobile Club of Cincinnati, a member of the executive committee, and the Taylor (Tex.) Automobile Club to membership in the association, the total membership of which now is exactly 30,153, most of which is comprised in the 262 clubs on the roll, the individual club members being counted A. A. A. members as well.

**Protest Against Premier Disallowed.**

The protest of the Chalmers representatives against the award of the Glidden trophy to the Premier car driven by Ray MacNamara has been disallowed by the referee. He held that as the auxiliary hand pump, which supplied the basis for the protest, had been fitted to 22 per cent. of the cars produced by the Premier company, MacNamara's Premier properly was a stock car.

# WIN A QUAKER CITY "CONCESSION"

Delaware Motorists Make Philadelphia Fathers Abandon City Tag Exaction—  
Will be Unrestricted Hereafter.

Philadelphia has had another awakening, the prod which this time caused its eyes to open being administered by the neighboring state, Delaware. It appears that shortly after the new state law became effective and which opened Pennsylvania to residents of those states that accorded reciprocal privileges, the Philadelphia authorities issued orders requiring such non-residents to call at the city hall for a tag, which would grant them the freedom of the city while the Fairmount Park Commission imposed similar conditions respecting non-residents' use of that big park.

The orders were designed chiefly to "keep tabs" on motorists from New Jersey, which exacts an "admission fee" from all visitors, but their force was felt as much by the near-by Delawareans. Accordingly, the Delaware Automobile Association took up the matter and when it pointed out that by requiring a special tag the city of Philadelphia was violating the law of its own state, which forbids that sort of thing, the Philadelphia authorities quickly came down and revoked the obnoxious order. The Fairmount Park authorities did likewise, but declared that its come-down was merely a "concession," as it claims its power to regulate the use of automobiles includes the power even to require special tags. The net result of the relief secured by the Delaware organization is that henceforth the tags of non-residents' native states, New Jersey excepted, will be sufficient to assure their unrestricted passage through Philadelphia or any other part of Pennsylvania.

## New Knot Tied in New Jersey Law.

Hugh B. Reed has tied a new knot in the New Jersey automobile law, the unraveling of which is causing some of the wise and reverend signors of the bench to wrinkle their brows. Reed represents the Montclair Garage & Machine Co., which, before Recorder Nott, of East Orange, was charged with having violated the state law in having, on June 4th, driven a car in East Orange at a rate exceeding 35 miles an hour. When the case came up last Saturday Reed did not question the identity, but held that the law, which fixes a fine, with the alternative of imprisonment, cannot hold, because a corporation cannot be imprisoned. He also contends that the corporation cannot be guilty of speeding, the car, for the corporation, as such, has no license to run one. The operator of the car, he said, must be an individual. The novel and unexpected contention "gave pause" to the Recorder, who felt that he

needed at least a week to consult his law books and "think it over." He is due to render a decision on Saturday next.

## Suggests a Curfew for Automobilists.

Semi-seriously, the Richmond (Va.) Times-Dispatch suggests a curfew for automobilists, in favoring an ordinance requiring uniform alarm signals. It thinks that if the curfew rang at 11 o'clock each night it "would give the people who own cars ample time for all the riding that would be good for their health and all the enjoyment they could reasonably expect from touring, and it would at the same time give the quiet people who live in much frequented thoroughfares the chance to live and die in peace. We think that every one should get all the pleasure out of this life that he can," further observes the Richmond publication, "but we do not believe that anybody has the right to punish his neighbor for the sake of his own personal pleasure."

## Where it is Illegal to Repair Tires.

Hereafter when a motorist punctures a tire or suffers other trouble on certain parts of Michigan avenue, Chicago, he must limp with his car to a side street, or push it there, as the Southside Park commissioners who have jurisdiction over the avenue have placed a ban on the making of such repairs while on that much-traveled thoroughfare. They also have decreed that not more than one vehicle shall stand in front of any building on the avenue except when loading or unloading. As most of the automobile establishments are located there, the order strikes directly at them.

## How Cincinnati Would Suppress Noise.

Night noises having grated harshly on the ears of Councilman Moyer of the Cincinnati (O.) city council, that gentleman has introduced an ordinance designed to promote slumber. His measure would forbid the opening of mufflers between the hours of 8 p. m. and 8 a. m., would prohibit the use of all alarm signals except reed horns, and prevent the performance of any work "causing unusual noise" in garages and repair shops between 8 p. m. and 7 p. m. and at all hours on Sunday.

## Youthful Driver Gets Father "in Bad."

A father who, after warning, permitted his 16 year old son to drive his car, has been cited by New Jersey's commissioner of motor vehicles to show cause why he should not be punished. The commissioner also has revoked the license of a chauffeur for unauthorized use of his employer's car.

## Connecticut Enforcing its Muffler Law.

In many parts of Connecticut, the police officials are conducting a crusade against open mufflers, which are forbidden by the state law. Some of the policemen, however, are reporting their inability to distinguish an open muffler from a closed one.

# DUNLOP TO BE DONE IN BRONZE

Decision Reached to Erect Statue of Pneumatic Tire Inventor in Edinburgh—  
Thomson's Son Lodges a Demurrer.

Overcoming all scruples as to the ethics of erecting a statue to a man who still is alive, it formally has been decided to immortalize John Boyd Dunlop in bronze. Furthermore, the memorial to the inventor of the pneumatic tire is to be set up in the city of Edinburgh, Scotland, thus settling another cause of strife among those who have been anxious to do proper honor to one whose service to the world is deserving of profound recognition.

The movement now has progressed to a point where the organization of the committee in charge of the fund has been completed with David A. Fairley, C. A., of Edinburgh, as permanent honorary secretary, and the committee is going ahead with its plans and soon is to issue specifications for competitive designs. Three prizes are to be awarded to the sculptors who succeed in producing the three most acceptable conceptions for a statue.

Since the memorial first was proposed, last fall, the situation has been enlivened by the brisk contest between various localities claiming the honor of supplying the site for the memorial. The movement started in Scotland, but as the aged inventor has spent most of his life in Ireland, even perfecting his invention there, the city of Dublin was urged as a fitting place to perpetuate his memory. His Scottish admirers prevailed, however, and steps are being taken to secure a proper location for the monument in Edinburgh, as already stated.

Meantime Courtauld Thomson, son of the late R. W. Thomson, has bobbed up and urged the claims of his father as the real inventor of the pneumatic. As is well known by those who are familiar with the earlier chapters of cycling history, the elder Thomson, who for many years lived in Edinburgh, where for years he was president of the Scottish Society of Arts and where he died in 1872, actually produced rubber tires in one form or another in 1848. Furthermore, the son is authority for the statement that the Dunlop Pneumatic Tire Co. at present has in its possession a set of brougham wheels fitted with the original Thomson tires. That a set of the original tires is in existence was not generally known, and in view of the fact that Dunlop's first tire has been deposited in the Edinburgh Museum, it has occasioned some little surprise that the fact of their present possession by the Dunlop company has not before been mentioned. The younger Thomson, while not antagonistic to the Dunlop memorial proceedings, feels that

they should not be permitted to obscure the memory of his father's advancement. Of the existence of a prior invention in the same line, it should be added in justice to the recipient of premier honors, Dunlop was unaware when he conceived and brought out the bicycle tire that so upheaved the universe.

#### Would Close Boston's Park Drives.

Because the state legislature declined to do what he asked, Mayor Fitzgerald, of Boston—the one in Massachusetts—high-mindedly proposes to “take it out” on the automobilists. Because automobiles actually use the roads in the Boston park system and subject them to some wear, the mayor believes the city should receive a share of the gate receipts, or rather of the registration fees paid to the state. He thinks 25 per cent would be about the right amount to pay for the repair of the parkways. He asked the last legislature to give him that proportion of the fees, but instead he received what inelegantly is termed a “turn-down,” and this despite his threat to close the parks to automobiles if his demand was refused. The legislature having adjourned, His Honor is endeavoring to make good his threat. Acting through the Boston Park Commission, he has issued an order excluding motor vehicles from the parks and parkways, but unfortunately for Fitz the order is without force or effect until it is approved by the Massachusetts Highway Commission, which spends the money received from registration fees and which apparently has no desire to relinquish any part of the money, since if Boston is given a share every other municipality in the state will be as much entitled to a portion. While its decision apparently is clearly foreshadowed, the highway commission has set July 23rd as the date for argument of the subject.

#### How Flynn Satisfied anirate Lawyer.

From the Atlantic seaboard to the summit of the Rockies in a Maxwell runabout is a trip just completed by George J. Flynn, an automobile dealer of Huntington, W. Va., in order to make good his end of a wager with a refractory customer. Flynn had sold the runabout to a lawyer and the latter returned it complaining that a water pocket was broken. Flynn examined it and said the only damage was a broken spark plug. The irate attorney refused to accept the car, and Flynn offered to wager, with the car as the purse, that he could drive it anywhere the lawyer stipulated, if he was reasonable.

“Go to Butte, Mont., in 14 days,” said the lawyer, according to Flynn's story, and Flynn started. He reached there in 13 days. The car was ready for a return trip, but not so the man. Flynn declared he would never make the trip again for all the automobiles ever manufactured. He started with \$150 and arrived with 85 cents.

### MIXED ON MARYLAND'S NEW LAW,

Even the Attorney-General of the State is at Sea in Interpreting it—Doubtful as to Reciprocal Requirements.

In Maryland, where a new law went into effect on July 1st, they already are having trouble over the interpretation of some of the clauses. The law is remarkable in several respects. Among other things, it fixes speed limits and then tears them down by permitting local authorities to adopt their own limits, and it also requires all drivers to be licensed, and yet permits unlicensed persons to drive provided they are accompanied by a licensed operator, who is made responsible for violations of the law; thus, for instance, an owner may drive his car if accompanied by his chauffeur, but the latter becomes responsible for his boss's derelictions.

The peculiar point over which the Marylanders now are sweating is, however, the section of the law applying to non-residents, which is a wonderful conglomeration, as follows:

140A. Any owner or operator not a resident of this state, who shall have complied with the laws of the state in which he resides, requiring the registration of motor vehicles, or licensing of operators thereof, and the display of identification or registration numbers on such vehicles and who shall cause the identification number of such state, in accordance with the laws thereof, and none other, together with the initial letter or letters of said state to be displayed on his motor vehicle as in this sub-title provided while used or operated upon the public highways of this state, may use such highways not exceeding two periods of seven consecutive days in each calendar year, without complying with the provisions of Sections 133 and 137 of this sub-title, if he obtains from the Commissioner of Motor Vehicles and displays on the rear of such vehicle a tag or marker which the said Commissioner of Motor Vehicles shall issue in such form and contain such distinguishing marks as he may deem best, upon the application of said owner or operator; provided that if any non-resident be convicted of violating any provisions of Sections 140B, 140C, 140D, 140E and 140L of this sub-title, he shall thereafter be subject to and required to comply with all the provisions of said Sections 133 and 137 relating to the registration of motor vehicles and the licensing of operators thereof; and the Governor of this state is hereby authorized and empowered to confer and advise with the proper officers and legislative bodies of other states of the Union and enter into reciprocal agreements under which the registration of motor vehicles owned by the residents of this state will be recognized by such other states, and he is further authorized and empowered, from time to time, to grant to residents of other states the privilege of using the roads of this state as in this section provided in return for similar privileges granted residents of this state by such other states.

That portion of the section requiring non-

residents to obtain Maryland tags, without payment was tacked on to the bill by Senator Blair Lee, and is the part which is causing the trouble. It is believed that it ties the hands of the Governor in effecting reciprocal agreements with other states, Pennsylvania already having served notice that if Pennsylvania motorists are required to apply for or carry Maryland tags, the Keystone State will decline to recognize such action as reciprocal and will treat residents of Maryland as residents of a non-reciprocating state and exact full fees and require the necessary tags.

The attorney-general of Maryland is wrestling with the problem, and it is hoped that he will be able to reach an interpretation that will avoid entanglements with motorists and friction with neighboring states having reciprocal provisions in their laws.

#### Warning Motorists by Block System.

The block signal system, which for years has proven so effective in railroading, at last has been extended to protect automobiles from being smashed by onrushing trains. At a crossing in South Plainfield, N. J., the Lehigh Valley railroad has installed “banjo” signals which indicate “Danger” automatically whenever a train is approaching from either direction. These signals are entirely separate from the regular train signals, and are operated purely as a safeguard for vehicles. At this crossing an automatic bell has been in operation for some time, but the noise made by many of the cars when going at high speed often prevented the driver from hearing the warning signal. The signal is only at the “safety” point when the device is in perfect working order, and any defect in the mechanism immediately raises the signal “Danger.”

#### Drink Causes Doctor a Heavy Fine.

The heaviest fine ever assessed upon a motorist in New Jersey was doled out to Dr. George A. Soden, of 462 Central avenue, East Orange, when he was arrested on a charge of being intoxicated while driving his car through crowded city streets. Only the fact that he was a physician in good standing and was married, saved the offender from a heavy jail sentence. The automobile was afire, and tearing along the streets at a rate of 20 miles an hour, while the drunken doctor was hanging in a dazed condition to the steering wheel. Dr. Soden pleaded guilty and was fined \$300.

#### Indianapolis 24 Hours Race Called Off.

The management of the Indianapolis Motor Speedway has abandoned the 24 hours race, which was scheduled to occur August 12 and 13. The next meet, therefore, will be on September 2, 3 and 5. The reason given for the abandonment is that the management feared a fatality in such a long grind.



**ADHERES TO THE LEFT HAND DRIVE**

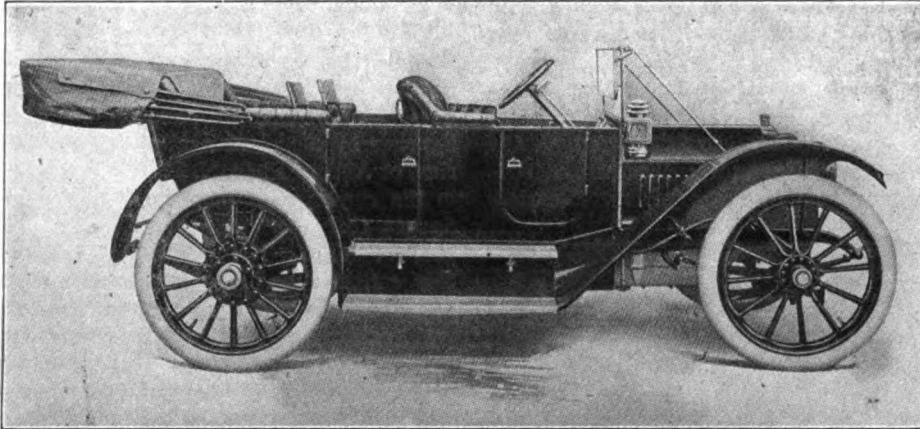
**Owen Car Marked by a Feature Unusual for Large Machines—Long Stroke for the Motor and Large Wheels.**

Gradually the cause of the left hand driving position is gaining favor in this country. Counting light commercial vehicles, taximeter cabs and small runabouts, there are at present about a dozen differ-

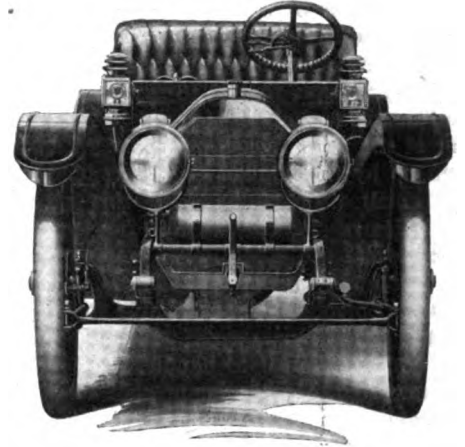
details only, as the general construction of the 1910 model has been retained.

In the Owen, which is produced by the Owen Motor Car Co., Detroit, Mich., the left hand system is signalized by a particularly successful arrangement of the operating mechanism, as well as by one or two features which are original. The really distinguishing point about the car, however, is the fact that it is the first large touring car to be so equipped within recent years, or since the placing of the driver on the

for his right wheels, whether in a gutter, alongside a curb or in the bushes which line the country highway, it may be added that whereas the operator may safeguard his car under difficult circumstances by driving slowly, he cannot govern the speed of a car which is approaching from the opposite direction. As it is from that quarter that the real peril of collision may be expected, the driver who is so placed that he can obtain a clear view of the other car is thought to be in the proper position. A



OWEN LEFT DRIVEN 50 HORSEPOWER TOURING CAR



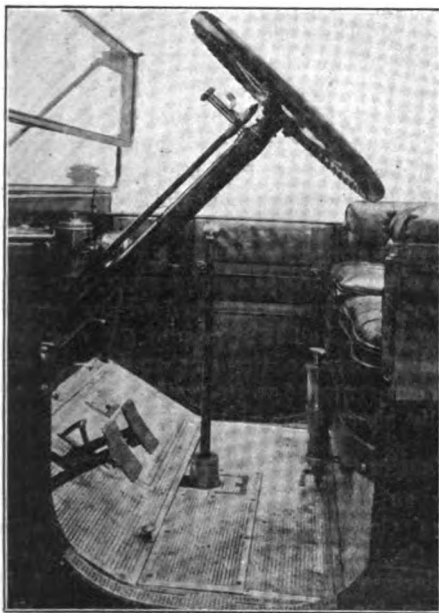
HOW THE GAS TANK IS MOUNTED

ent makes of American car in which this feature regularly is installed. In one instance, at least, an option is offered on left or right hand control, while in a number of

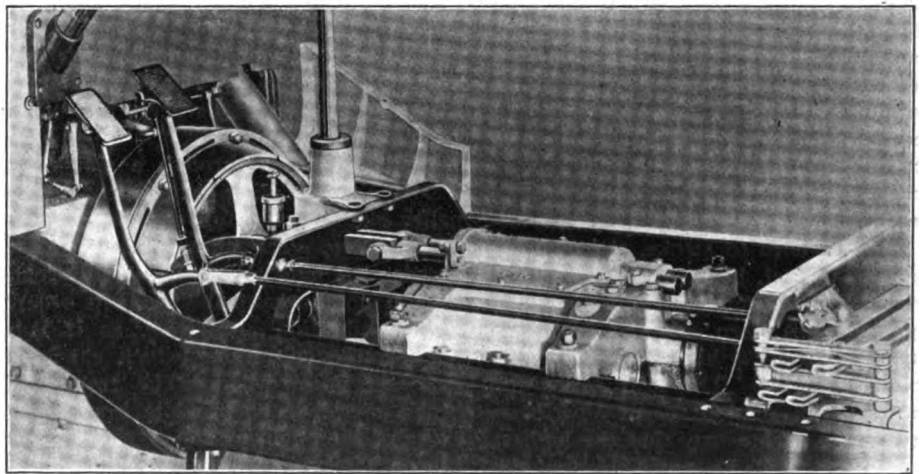
right side of the car became the generally accepted practice.

Suggesting, as the increasing use of left control does, the question of its advantages, it may be well to recapitulate some of the arguments which have caused it to be considered seriously after its abandonment by those who had espoused it in the earlier days of the industry. Thus, it is

similar argument obtains with respect to the passing of vehicles which are traveling in the same direction, and the need of gauging the width of the road, looking out for approaching vehicles and observing conditions in the road ahead. Still another point, which is particularly important where town use has to be taken seriously into account, is that with the driver's place



THE CONTROL MECHANISM



CHASSIS VIEW SHOWING CLUTCH AND CHANGE GEAR

cases, manufacturers employ one system on certain models and the other on different ones. Quite the most remarkable exponent of the left hand driver's position, however, is the Owen car, which in more ways than one proved a noteworthy addition to the great and growing list of domestic products, and which for 1911 will be characterized by refinement of minor

urged that when the operator sits on the left side of the machine he is enabled to judge accurately the amount of hub clearance between his own machine and opposing traffic. In narrow streets or highways this is an important advantage, and in answer to the objection that it is equally important, if not more so, for him to be able to observe the nature of the footing offered

on the left hand side of the car, the right, which always should be brought up to the curb, is left unencumbered for the entrance and exit of passengers.

One difficulty which has been encountered in arranging the mechanism for left hand control of the machine is that of producing a satisfactory arrangement of the control gear itself. It is generally conceded that

by the sanction of good use and popular demand, the operating levers should be at the driver's right hand. Such being the case, unless due provision to the contrary is made, there is some likelihood that the foot board may be needlessly encumbered and the seating accommodations needlessly crowded. In the arrangement of the Owen control system, due recognition has been given these points.

In the first place one of the customary levers is dispensed with, the entire control of the brakes being vested in a pair of foot pedals, instead of in a single pedal and a lever. Second, by using a selective gear lever of the pattern sometimes known as the fulcrum type, that is to say, minus the usual segment, but pivoted on a spherical joint at the floor line, the amount of space taken up by the control gear is reduced to very small proportions. By this means both sides of the car are left free for entrance, while the single lever employed, as the accompanying picture shows, by no means is objectionable, nor liable to be obstructed by the passenger while it is efficient and convenient to handle.

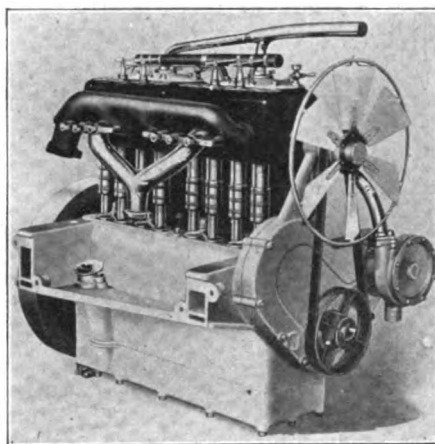
In accordance with the present mode in automobile construction, the Owen body is built with straight, high sides, thus approaching in form the torpedo style, though distinguishable from the true torpedo in a number of ways. Another distinctive point about the appearance of the car is its apparent great size. This is due to the use of extremely large tires, the specifications calling for 42 by 4 inch tire equipment both front and rear. Unlike many cars, it is readily distinguishable when seen from the front, due to the method of mounting the acetylene storage tank. Instead of being mounted on the running board in the conventional way, the tank is placed in front of, and below the radiator, occupying an inconspicuous position just over the starting crank shaft, where the pipe leads to the headlights are reduced to about their lowest possible minimum, and where it is out of the way.

The motor is distinguished by an unusual ratio of bore to stroke, the cylinder dimensions, in fact, being  $4\frac{3}{4}$  by 6 inches, and giving 50 horsepower. The long stroke arrangement has been adopted with the object of securing a high torque at low crank shaft speeds. The gear ratios for the various transmission speeds have been worked out in such a way that the highest engine torque will be available for the average running speeds so that quiet operation is assured.

The general appearance of the motor will be seen by the accompanying illustration, from which it is evident that the valves are mounted on the right side of the machine, the left side being left clear of encumbrance save for the magneto and a single line of water piping. The circulating pump, which is on the left, is carried in front of the gear housing and, therefore, is

close behind the radiator. A noteworthy detail of the engine arrangement is the housing of the valve lifters, springs and stems in individual sleeves, which afford them ample protection, at the same time leaving them readily accessible in case of need. The cylinders are cast in pairs with liberal core openings, the spark plugs are mounted over the inlet valves, which are fed from a Y-shaped manifold; the pistons are unusually long, with the rings carried close to the top, instead of being distributed down the body; the connecting rods are of H-section, long, and equipped with liberal big-end bearings secured by four bolts.

The crank case, the lower section of which constitutes the oil reservoir, is of liberal proportions. It is flanged at the sides to form a complete dust pan extending to the side frame members. Lubrica-



OWEN FOUR CYLINDER MOTOR

tion is effected through the medium of a constant level splash system with automatic pump service from the base reservoir. Ignition is by Bosch high tension magneto, with battery reserve and starting equipment.

Transmission is through a simple cone master clutch, sliding change gear and propeller shaft to the full floating rear axle. The change gear affords three forward speeds. Its mounting is decidedly peculiar, though not unreasonably so. In order to reduce vibration and noise, as it is explained, the sub frame which carries the gear set is of wood. The transmission bearings are of plain white brass, as are those of the engine. The wheels, however, run on Timken roller bearings of the familiar adjustable type.

The brakes, which are of the conventional, rear wheel band type, are pedal actuated, as already indicated. The set corresponding to the usual hand operated emergency brake is connected to a ratchet controlled pedal, which thus permits the machine to be locked when left standing unattended. The service brakes are actuated by the clutch pedal when the latter is forced into its extreme position. The

control mechanism thus is rendered extremely simple. Both sets of brakes are applied through equalizing beams which extend entirely across the chassis. By means of the double drop and "bottle-neck" construction of the frame, low center of gravity and wide turning lock are achieved. The spring suspension, which is semi-elliptical in front and three-quarters elliptical in the rear, is of ample proportions. Hence, despite its somewhat radical characteristics, the machine promises to give a good account of itself in service.

#### How Horse Helps Garage Owner.

Saving money in garage operation by the use of a horse is a new phase of the business, resulting from some sensible cost figuring by a garage owner. C. R. Zacharius, of Asbury Park, N. J., who is a pioneer in the employment of a horse in a garage, figures that the beast saves him \$1,500 a year or more. His method of arriving at this estimate and the reasons which impelled him to add equine equipment to his big garage are rich in suggestion to all garage proprietors who feel a concern about stopping up financial leaks and reducing the proportion of expenditure to receipts.

After making a thorough study of the various losses attending the garage end of his business, Zacharius found that the movement of cars to and from the wash stands cost him a great deal of money. In some instances it took quite a number of his garage men to move a big touring car to the washstand, and they spent considerable time on the job. Similar losses in men's time were incurred when the car was moved away from the stand again. He even found that it was sometimes costing almost \$1 just for moving a big car, for the washing and polishing of which he obtained only \$1.25. A horse now does the duty of the men in moving the cars about. By a simple harness arrangement, the animal quickly can be attached to any car in the place, and in a minute the machine is pulled over to the washstand and another car removed to its resting berth in an equally short time.

#### Michelin Gets Reduced Duty on Rivets.

By an appeal to the Board of United States General Appraisers, the Michelin Tire Co., of Milltown, N. J., has obtained a reduction in duty on the rivets which it imports for use in non-skid tires. Duty was assessed by Collector Loeb, at New York City, at the rate of 45 per cent., under the provision of the new tariff, relating to "rivets for non-skidding automobile tires." The board granted a reduction to  $1\frac{1}{4}$  cents per pound, as "rivets of iron or steel, not specially provided for." The testimony showed that the rivets, as imported, are in the finished form of an ordinary steel rivet, and are subsequently lathed and case hardened for use in tires.

## MAKING PROGRESS IN JAMAICA

**One Company Alone Operating 15 Automobiles for Passenger and Freight Service—Good Roads Prevail.**

What local trolley companies have done in the way of developing provincial communities may be done by aggressive automobile men, but in a broader way and on smaller capital. The opportunity promises well, and in not a few remote places good American dollars are earning more dollars at profitable rates. United States Consul Frederick Van Dyne, of Kingston, Jamaica, instances one rather suggestive example, showing, incidentally, how the influence of a single enterprise has strengthened the hold of the automobile in that West Indian island.

"Until the beginning of the recent touring season there were not more than half a dozen motor cars owned in the island," says Consul Van Dyne. "But with the advent last winter of the Jamaica Motor Car Co.—organized and managed by Americans, although there is some Jamaican capital invested in it—there has been a marked increase in the use of automobiles, and there are now over 25 owned here, besides those belonging to the company. This company has at present 15 cars in service—ten 5-passenger, three 12-passenger and mail cars, and one large truck for hauling freight.

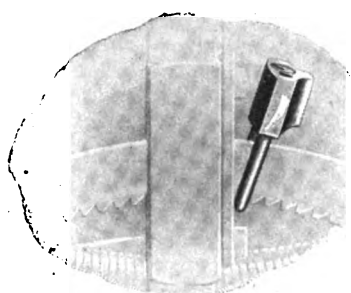
"Besides arranging several attractive tours around the island, the company maintains a regular daily service, carrying passengers and mail between Kingston and Port Antonio. It has the contract for carrying the mails, and runs Pullman motor mail coaches, having seating capacity for 12 passengers, with separate compartments for mail and baggage. With a 60 horsepower truck specially fitted for the purpose it carries freight in parts of the islands not reached by the railroad. The rates charged by the company for carrying passengers over the regular route in the mail and passenger car are 3d. (6 cents) per mile; per day for car, \$20; per hour, \$4.50. The company has a well-appointed garage where repairs are made and machines, supplies and accessories are sold. It handles only an American motor car. The manager states that the volume of business has exceeded expectations. Another American motor-car firm has a local agency in this city. Motor delivery vans are used by a local bakery establishment.

"There are over 2,000 miles of excellent roads in the island, which are constantly kept in repair by the colonial government. The unusual combination of mountain, ocean and tropical scenery afforded here makes Jamaica a particularly attractive field for motorists. As the country is moun-

tainous and the traffic at times heavy, motors specially constructed for climbing are required. The climate causes exposed metal parts to tarnish quickly, and leather discolors, readily. Any improvements designed to obviate difficulties would prove popular. The number of high-priced cars is not likely to be great. The general demand is for a strong, well-made car of moderate price, not to exceed \$1,000 to \$2,000."

### Lock that Prevents Theft of Cars.

Motor car thefts are increasing to such a degree that renewed attention is being given to the production of devices for their prevention, and of these an example which aims to combine simplicity with efficiency is provided in the Connecticut automobile lock which the Connecticut Telephone and Electric Co., of Meriden, Conn., is placing



on the market. The lock is applied to the emergency brake lever segment, in the manner shown in the illustration. It goes on the release side, adjacent to the lever. On cars where the clutch is disengaged by the first movement of the lever before the brake is applied, the car can be locked without the brake being applied and with only the clutch disengaged, so that the car may be moved on the garage floor but cannot be operated on the road. The lock, which sells for \$1.75, is of the Yale type, made from a solid brass block, and all keys are different. The shackle and steel inserts are hardened so that they cannot be filed or cut. There is no tension on the lock body, because when the lever is brought toward the release position it strikes the shackle, with no strain on the lock mechanism.

### Where Magnificent Opportunities Offer.

"I know of no field in the world today that offers such magnificent opportunities for automobile trade as western Canada," says J. E. Jones, American consul-general at Winnipeg, in the course of a letter to Motor World. "The roads are especially suited for the use of motor vehicles—the long stretches of prairie being particularly adapted to them—while the people of western Canada are prosperous and the farmers are beginning the commercial use of motor driven vehicles." Incidentally, the first automobile show ever held there is now in progress in Winnipeg.

## TRACKLESS TROLLEYS IN EUROPE

**Although Unknown Here they Continue to Find Favor Abroad—Features of One of Newest Systems.**

Still practically unknown in this country, the so-called trackless trolley continues to thrive in Europe. As has been explained in various reports, this type of motor vehicle, which need not be confined to the omnibus and trolley feeder work with which it generally is associated, has become a paying proposition in some localities, while in others it is run at a loss. Mechanically, considerable progress has been made in its development during the past year or two. At present no less than three distinct systems are in use on the Continent, each of which possesses certain advantageous characteristics peculiar to itself.

The system employed in Italy is the Filovia, which at present is operative for a little over 60 miles. The trolley, which is built on the Cantono system, consists of an ordinary trolley boom fixed to the car by a trolley base similar to the bases used in this country on overhead trolley car lines. The trolley head consists of a four-wheeled truck, affixed to the trolley boom by means of a ball and socket joint. This allows the trolley-head to move easily and to adapt itself to any irregularities in the overhead line. The overhead work, to all intents and purposes, is similar to that for ordinary rail traction, with the difference, of course, that two conductors are employed instead of only one, thus forming a complete metallic circuit with both positive and negative wires. This construction appears to answer admirably, and the trolley shows no disposition to leave the wires at high speeds, or when the vehicle has to move laterally in order to pass other vehicles traveling in the same direction.

In the Mercedes-Stoll system, which is installed in Vienna, motors of 20 horsepower each are fitted in the hubs of the rear driving wheels, so that the motors form an integral part of the road wheels themselves, thus doing away with the necessity for any mechanical transmission. The current is led through the interior of the axle, and the armature of the motor hub is fixed by means of keys on the axle itself, and so acts as the hub of the wheel. The trolley consists of a frame or carriage fitted with four wheels, which runs on the tops of the wires, the current-collecting device being attached to the car by means of flexible cables. A pendulum weight is attached to the center of the trolley carriage to keep the carriage balanced and the wheels well pressed down on the wires. The conducting cable is wound round a small drum mounted upon the chassis, and about twelve

yards of spare cable carried which can be played out to allow the car to run on the whole width of the road. Four wires are used in Vienna. In other places where only two wires (positive and negative) are employed, when two cars, running in opposite directions, meet, the drivers interchange the trolleys by means of detachable cable contact boxes, the operation usually taking not more than a few seconds.

In the Max Schiemann system, installed at Mulhausen, the trolley is similar to that used on ordinary street railways, with a boom from 14½ feet to 16 feet in length. It is fitted with two sliding contacts, and the car is enabled to deviate for distances of 10 feet on either side of the wires. The overhead work is similar in all respects to ordinary trolley car practice, except that four wires are used.

While thus far applied mainly to regular street traffic transportation purposes, it would seem that the principle might be carried out to good purpose in a number of other ways where regular transportation over stated routes is in demand. Thus the applicability of the railless trolley for industrial purposes in transporting materials about large plants appears particularly apt. The usefulness of the electric motor truck for such purposes is undisputed, but the bulk and weight of the power plant involved in the use of the ordinary storage battery system puts limitations upon its service in many instances.

With a constant source of current supply at hand at all points within the transportation zone, the rolling stock can be built and equipped much more cheaply than where batteries are to be carried, and also with a more economical ratio of load weight to vehicle weight. Circumstances alter cases, of course, and the limited radius of the trolley-fed electric automobile would seem to render it useless in many respects. Nevertheless, it doubtless will be found in the course of time that under certain circumstances it will yield better economy than the more familiar and independent form of machine.

#### Quakers Propose a Truck Contest.

For the purpose of showing how much it costs to haul a pound of merchandise from Philadelphia to Atlantic City and back, it is proposed to inaugurate a commercial vehicle contest between those points, in which entries from both manufacturers and users of automobiles of this class will be welcomed. Although the project is being fostered by a Philadelphia newspaper, the Quaker City Motor Club also is interested in it to the extent of lending the use of its name and the services of its secretary, Harry Harback, in the enrollment of entries. Rules embodying a number of novel conditions are being framed, and the American Automobile Association has granted a sanction for the event for August 12 and 13.

## WATER AS AN ENGINE FUEL AID

### Possibilities It Presents in Contributing to the Power Result—Difficulties of Securing Intended Effects.

Motorists who have experimented with an ordinary carburettor by squirting a few drops of water into the mixing chamber by way of the air port, frequently are moved to ask why it is that gas engine makers continue to ignore the apparent possibilities of using water in the cylinders. For it is a well known fact that small amounts of water injected into the cylinder cause the motor to accelerate momentarily and give just about such a response as is to be expected when a poor adjustment of the needle valve is remedied.

As a matter of fact, considerable experimenting has been done in the way of water injection to the cylinders; the idea, indeed, dating well back toward the days when surface carburettors were in vogue. Save in large stationary engines, however, no practical development of the sort ever has been made. Indeed, the only recent suggestion looking at all in the same direction is the rather vague recommendation of one expert to the effect that water injected into cylinders which are badly carbonized will have the effect of breaking up the carbon cake and assisting in its disintegration and expulsion from the combustion chamber.

Those who have studied the action of water in the internal combustion engine at all closely point to a number of results which might be expected to occur were arrangements made to inject water into the cylinder in connection with each charge of gas. What would occur, of course, would depend a great deal upon the amount of water used, the exact time of the injection and the ruling temperatures. With relatively large amounts of water, for example, the effect would be to cool the burning gas so rapidly as to rob it of its energy early in the stroke and so to detract from the power of the engine. Smaller quantities of water, or higher relative cylinder temperatures, on the other hand, would result in the generation of steam. If properly regulated and timed, the effect of this steam generation might be to alter the shape of the expansion curve and by reducing the initial pressure and increasing the pressures through the mid-stroke region, serve to decrease the range of temperatures and pressures to be withstood by the cylinder without altering the mean effective pressure of the stroke. Such an effect, if obtainable, would reduce vibration, permit higher torques to be obtained at low rotative speeds, and reduce the stresses on the moving and fixed parts of the motor.

What ordinarily is contemplated in connection with the use of water in the cylin-

ders, however, is the generation of water gas, and the use of that gas in raising the pressure operative during the working stroke. Steam when subjected to intense heat tends to dissociate, or break down chemically, its component elements separating or forming with other elements new compounds. It is in this way that water gas is formed in the presence of heated carbon, carbon monoxide and hydrogen being the principal resultants. Water gas is combustible and capable of giving off a great amount of heat. Therefore, it is urged, its generation even in very small amounts within the cylinder of an engine would have the effect of adding to the pressure and so of increasing the power.

The fact that it would be difficult to secure such action without robbing the burning fuel mixture of more heat than would be regained by the breaking up of the steam, probably is one reason why no more attention has been paid to the subject hitherto. Another reason is that at present there is but slight demand for highly scientific methods of increasing the efficiency of the small gas engine. It is cheaper to use more fuel to get more power than it is to devise and construct new machinery with the object of extracting a small increment of additional energy out of the original volume of fuel gas. It is certain that a very little water introduced into the cylinder tends to increase the power. But the difficulty of regulating the amount properly and of securing the desired effect regardless of speed and load conditions constitute too great a problem for the carburettor maker of the day to bother with, since he is not directly called upon to do so.

#### Weather's Effect on Tire Inflation.

Motorists who aim to always keep their tires properly inflated and thus secure the greatest mileage and best service generally should not fail to reckon with weather conditions.

"On account of air contraction and expansion, tires pumped up sufficiently on a hot day may be too flat in cool weather and vice versa," says Jas. A. Braden, of the Diamond Rubber Company. "Before starting out with the full load aboard, the automobile owner should always make sure that his tires stand up firm and round," adds Braden.

#### Effect of Large Tires on Drive Ratio.

Advantages offered by large tires may sometimes tempt a motorist to alter the equipment of his car by adopting larger pneumatics than the regular specifications call for. In making such a change, however, it should be borne in mind that increasing the effective diameter of the rear wheels has the effect of reducing the gear ratio. A car with larger tires, therefore, should not be expected to prove quite as lively a hill climber after the change is made as it was before.



## RIBBING CYLINDERS OF RIDGES

**Grinding and Lapping Do Away with the Tool Marks—Method by which Smooth Surface is Obtained.**

"All cylinders are ground and lapped in," says the salesman; "and so are the pistons and rings."

The prospective automobile purchaser listens attentively to this, as to all the other details which go to make up the verbal explanation without which it is impossible to buy anything from a wheelbarrow to an air-ship. But the chances are about ten to one that unless the "prospect," as the salesman terms him, happens to be thoroughly familiar with advanced manufacturing methods in the machinery line, he might just about as well have told him that all seams in the cylinder were double sewed and bound with the best heavy-weight braid.

As a matter of fact, only the relatively few people who have had direct manufacturing experience or long familiarity with the processes involved in the construction of gas engines are able to appreciate the import of the salesman's remarks about the method of finishing the cylinders. About all the information that he succeeds in conveying is that something is done to the cylinders that is enough out of the ordinary to be thought worthy of mention and that, somehow, is supposed to have a direct bearing on the performance of the machine on the road; that it is subjected to a finishing process which is supposed to improve the engine action.

And that is just what lapping does. For it is nothing more nor less than a refinement of the finishing process, which renders the cylinder bore and the piston and ring surfaces smoother so that less clearance will be required between the piston and cylinder. This, of course, means that less leakage will take place during the working stroke, and it also means that there will be less engine friction to be taken care of. The polishing of the cylinders, which is what lapping really amounts to, also is of material assistance in the matter of lubrication; by providing a smooth surface for the lubricant to spread over it assists the oil in separating the surfaces and keeping them cool.

In order to understand why, in the more carefully constructed and fitted engines, it is thought necessary to submit the cylinders and pistons to a finishing process after they leave the boring mill, the nature of the boring operation itself should be considered. Unlike an operation of the same name which is carried on in wood by means of an auger or gimlet, boring, as the machinist understands the term, implies a reversal of the turning operation. If it be

possible to imagine a common engine lathe turned "inside out," with the tool revolving inside the work, a fair conception of the type of boring mill upon which cylinder castings are machined will be obtained.

The rough castings, after being inspected, roughed over with a coarse file and set up in a special clamping device or "jig," are mounted in the mill in such a way that the boring bar can work inside them. The boring bar, so-called, consists merely of a shaft or mandrel carrying a cutting tool, much like the diamond-nosed lathe tool. As the boring bar revolves, the point of the tool describes a true circle within the cylinder. As the tool rotates, however, it gradually is made to travel from end to end of the cylinder, so that at the end of the cut the cylinder wall is lined with a fine helical groove, which forms an almost imperceptible screw thread from one end of the bore to the other.

With the second and subsequent cuts, if more than two are taken, the depth of the grooves is reduced and their number is increased, because the depth of the cut is reduced for the finishing process and also the rate of feed from end to end of the work is reduced. Nevertheless, after it leaves the boring mill the wall surface of the cylinder always presents this fine grooved effect, even though it be almost imperceptible to the eye.

Tiny as these ridges may be, it is desirable to do away with them, because their presence tends to prevent the smooth run of the oil from end to end of the bore and also to prevent the piston and rings from being made as close a fit as otherwise would be possible. Hence, it is desirable to render the surface even smoother than it is possible to render it by means of a regular cutting tool. At the same time, it is equally important that the surface shall be maintained absolutely cylindrical; that is, a perfectly true circle at every point, and absolutely straight sided from one end to the other.

Therefore the grinding process is brought into service for the next step. This consists in mounting a small emery or carborundum wheel on a shaft which is mounted little off the center of a heavy mandrel or boring bar, which, in turn, can be made to revolve. By suitable means, the cutting wheel is driven at high speed and the bar upon which it is mounted is both rotated and fed from end to end of the cylinder. The effect of this treatment is to cause the cutting wheel to grind the entire surface of the cylinder, and to reduce the ridges left by the cutting tool; leaving instead a much greater number of still finer and more irregular ridges, which are formed by the hard particles of emery or carborundum.

The resulting surface seems to the senses of sight and touch to be "dead" smooth. Indeed, many engine builders consider it smooth enough for all practical purposes. Examination under the microscope and long

experience with bearing surfaces which have been ground in this way, however, reveal the fact that even this apparent refinement of what is to all intents and purposes extreme accuracy, is not quite flawless.

In the first place, unless the grinding is done with extreme care, the grade of the wheel properly selected, the speed of cutting and depth of the cut properly determined, and if the walls are not thoroughly cleaned afterward, trouble may ensue. Fine particles of the emery may become embedded in the metal to continue the cutting action after the cylinder has gone into service. Or, the grinding action may be somewhat irregular and so destroy the truth of the surface, or the mandrel may spring, thus causing the cylinder to be ground out of shape. Similar difficulties may follow the grinding of the pistons and rings, which is carried out by similar processes.

So, for extremely accurate work, lapping is resorted to. Originally, lapping consisted in working into the surface of a part, such as a bearing, fine particles of lead or some soft metal alloy. This was done by rubbing a bar of the lead against the surface which it was desired to render smooth, while the latter was revolving at high speed. The effect was to fill in all minute depressions in the harder of the two metals, leaving its surface velvety and in fine shape to take the lubricant. More recently, the term has been applied to one process of grinding in two or more surfaces which are to work together in regular service. Thus, in gas engine work, the lapping of the pistons and cylinders corresponds very closely to the grinding in of the valves.

After the cylinder and piston, together with the rings have been reduced to the finest possible surfaces by means of turning and grinding, the engine is assembled and turned over by power applied to the crank shaft. At the same time a small quantity of some very fine abrasive material is dumped into the cylinder and permitted to work with oil or water between the rubbing surfaces. Sometimes very fine emery powder and oil is used, sometimes nothing harsher than Sapolio and water. Sometimes, even, it is thought that best results can be obtained when only kerosene oil is worked into the cylinder, no abrasive material whatever being employed.

Naturally enough, the practice of different makers varies considerably in this, as in respect to other manufacturing processes. The quality of the iron used in the cylinder castings, as well as in the pistons and rings, has an important bearing on the question of finish. So does the price of the finished product. But whenever the grinding and lapping of cylinders is referred to in connection with a particular machine, it is reasonable to suppose that the best of care has been lavished upon its construction and that, other things being equal, it should run as smoothly even while new as a seasoned motor which has seen long service.

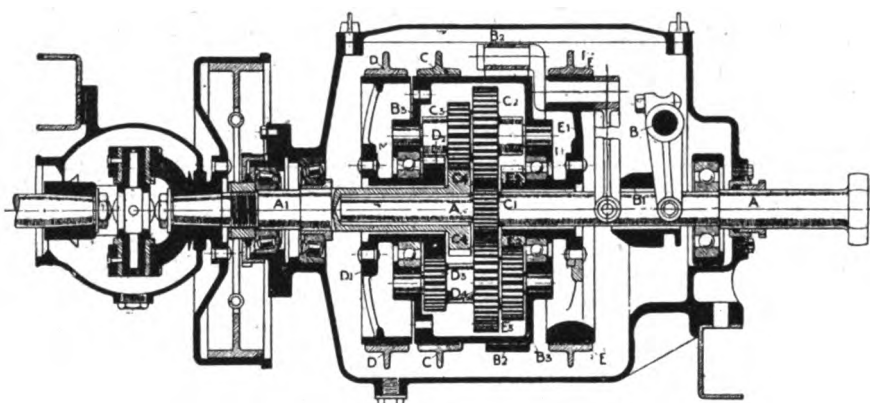
## ONE PEDAL CONTROLS GEAR CHANGE

Selective Transmission that Does Away with Hand Levers—Embodied in an English Maker's Product.

All pedal control for the change gear is a feature which is held by many authorities to be of great value in a car which is intended for all around service, particularly if it is to go into the hands of unskilled drivers. In this country where the idea has been applied, the tendency has been to use two or more pedals. An English manufacturer, who long has been a staunch adherent of the "epicyclic" gear, as it is

revolving as a unit. For this purpose, the driving shaft, which is connected to the master clutch by means of a flexible coupling, is clutched to the propeller shaft by means of the brake band B2. This connects the shaft A-A1, when the transverse shaft B is rocked, thus causing the cone B1 to slide on its feather key and force apart a pair of lever arms which are pinned to the casing E1. By gripping the drum B3, while the remaining three bands, C, D and E are free, the entire mechanism is made to revolve as a unit.

Band C is used for the second speed, bringing into action the pinions C2-C3, which mesh respectively with gears C1 and C4 on shafts A and A1, respectively. The reduction gearing, it will be observed, is of



NEW SELECTIVE PLANETARY CHANGE GEAR SET

known locally, just has introduced a novelty in the form of single pedal control for all speeds; the pedal having selective movement, and being guided by a grid-iron segment. As applied to pleasure cars, it is held to be particularly advantageous, since it does away with the side levers and thus permits uniformly easy access to either side of the car.

The maker in question is the Adams Manufacturing Co., and the new control system has been developed in connection with a new four-cylinder model of the Adams car, which is equipped at the option of the purchaser either with the new planetary system or a conventional sliding pinion change gear. Indeed, it is a noteworthy point in connection with the design of the transmission, that it is enclosed in a gear box of so nearly standard form as to be readily interchangeable with the standard type of sliding gear. In other respects as well the gear is well worthy of study.

As the accompanying illustration shows, the entire mechanism revolves in oil within the fixed outer casing. It also will be observed that, following the practice of one American maker, since abandoned, the gear is designed to afford three forward speeds in addition to the reverse. As with the average sliding gear at the present time, the intention is for the bulk of the running to be done on the high gear. This, of course, affords a direct drive, with all parts

the staunch and approved spur type, which is simple to construct and reliable in operation. A particularly good feature structurally is the form of brake employed, which is of the double contracting shoe type, applied through a double-acting linkage and so arranged that the shoes are held clear of the drums when not engaged.

In obtaining the low speed the band D is applied to check the spur gear D2, which rides loosely upon the shaft A1 and meshes with gear D3 mounted on a second lay shaft, with a spur connection to the driven gear C1. In reversing, the band E is employed to stop the drum casing E1, which carries the spur E2. As the gear E3 is integral with the lay group D3-D4, the effect is to drive the shaft A1 in the backward direction. It may be added that two lay shafts are employed instead of one as a means of facilitating the control of the mechanism and also to secure balance and uniformity of running.

The control of the gear is vested in the single pedal already mentioned, which is formed with large side flanges on the foot plate, thereby enabling it to be moved to one side or the other in making the necessary selections. When the pedal is pushed forward into either of the three slots in the guide plate it serves to engage one of the forward speeds. The mechanism remains engaged until a second pedal, which corresponds to the usual clutch pedal, is

depressed. The first movement of this pedal serves to disengage the master clutch. Further progressive movement of the clutch plate has the effect of releasing which ever of the gears happens to be engaged, by disengaging its controlling band. Moving the clutch pedal to the limit of its travel has the effect of applying the service brake, which is mounted on the propeller shaft in the rear of the change gear. The reverse motion, it may be added, is obtained by moving the side lever, normally used for the emergency brake, in the forward direction.

### Why City Must Protect Taxicabs.

That the city is under legal obligations to protect a taximeter cab company's property during a strike is forcibly made plain by an opinion from the office of the corporation counsel of Chicago, Ill., in connection with an attempt by some of the Chicago aldermen to compel the mayor or the chief of police to withdraw the police guard from the cabs and garages of the companies which at present have a chauffeur's strike on their hands. The city's attorneys called the council's attention to the law which makes the city responsible for three-fourths of the value of private property destroyed by mob.

### Tests for the Suspension Springs.

Suspension springs should be inspected from time to time with the object of discovering possible flaws. This may be done by jacking the frame away from the axles until the leaves begin to separate. The individual leaves then may be "sounded" with a hammer, when any that are cracked or broken at once can be detected. At the same time the opportunity should be taken to lubricate the leaves by inserting between them a thick graphite-grease mixture and working it well in toward the center.

### Neat Manipulation of Split Pins.

Heedless and slipshod tendencies on the part of the chauffeur may be detected by the habitual use of split pins, which are either too small or too long for the parts in which they are employed, and by the habit of bending the ends flat back instead merely of spreading them sufficiently to prevent them from working out. Neat and tidy manipulation in the performance of ordinary repairs is the test of a good mechanic, generally speaking.

### Brake Systems with Many Joints.

Brake mechanism which is so constructed as to embody a large number of joints, is liable to considerable wear in the articulations. This is particularly true of poorly adjusted linkages involving long equalizers or balance beams. If the parts are subject to rattling, it should be seen to that the inevitable abrasion does not reduce the size and strength of the connection pins to the danger point.

**MAKING THE MOTOR TRUCK FIT**

**Complex Problems Involved and False Premises that Must be Overcome—  
Room for Transportation Experts.**

Adapting the motor truck to the real needs of the user is more or less like fitting a new suit of clothes. With skilful tailoring all may be well from the first try-on; but if the measurements have not been made properly or the buyer's tastes not studied judiciously the prospective wearer may not be pleased and the goods may have to go up in the window tagged "uncalled for." If the buyer happens to be square in the shoulders and reasonable in the requirements of his waistband, it may be he can walk right in and walk right out again in a stock suit. But this seldom happens; some men cannot wear regular clothes and others are pleased with the notion that they themselves cannot wear them.

It will be observed that this has nothing to do with the pattern or texture of the fabric, the size of the buttons or the geometric exactitude with which the pattern is cut. It is entirely a matter of fit. And unless there is proper harmony of ideas between the two parties to the transaction it is likely that one or the other of them will express himself as being more or less dissatisfied with the result. Tailors will explain that the whole trouble is that most men do not know just what they should wear, irrespective of what they think they know; and that their work is considerably hampered by the fact that they are forced to devote more or less time to the instruction of their customers in the rudiments of sartorial art.

Commercial motor car salesmen in most cases are prepared to make a similar assertion. The average buyer, while he may be convinced in his own mind that the motor wagon would be a good thing in his line, lacks familiarity with the subject, lacks discrimination, and, most of all, lacks an exact knowledge of what his own requirements really are. Naturally, in the exploitation of as novel a project as the horseless dump cart, for example, a very considerable amount of educational work has to be done. But the really serious difficulty lies not in inducing the conviction that the automobile is a good proposition in a perfectly abstract sense, but in studying out the details of a prospect's business, selecting the type of machine which he requires and teaching him how to use it in an economical manner.

This portion of the commercial vehicle propaganda is even more difficult than would appear. The development of the vehicle itself to a point of commercial economy is a fairly simple matter, in the sense

that it is directly progressive work along lines which are pretty well laid, and in the sense that the progress is entirely of and within a single industry. In introducing the business motor vehicle to the needs of the man whose transportation problem is viewed between the tips of a horse's ears, so to speak, it is necessary to gain an exact idea of the working of varied businesses, which is a task fitted only for expert handling. Moreover, there is, as in all salesmanship, the need of solving the human equation in order to make headway with any and every possible customer.

The standard of comparison between motor and animal traction on the highway for a number of years has been the ratio of one to three. One good motor truck will replace three horse-drawn trucks in the same service. This was a sort of fetish with commercial car dealers for a while, until it was found necessary to qualify it. Now they say that this is true, "under normal conditions." The difficulty which made the qualification necessary arose mainly from the fact that most teamsters are accustomed to gauge their loads by the pulling capacity of their teams. Consequently, finding a certain amount of overload capacity in the motor truck, they immediately proceeded to work it for what it was worth. Generally it was worth a breakdown. But the breakdown always was charged to the fallability of the machine; never to the poor judgment of the wagon boss.

It simmers right down to this, that the primary transportation problem has got to be regarded in the same light as the secondary transportation problem. Railroads prosper in proportion to the wisdom, experience and judgment of their directors. They thrive as a result of industrial and commercial concentration—the concentration which they themselves promote. Railroad men have evolved a prodigious industry out of a very elemental commercial incident; the simple need of transporting certain things from places where they are not needed to places where they are in demand.

The railroads and steamship lines enable people to work in towns and live on country produce; they enable the great farms to feed the great cities and the cities to supply the farms with other necessities than food. Themselves originally created to supply a growing need, they have so out-run their justification that now they exert themselves to create a demand for their services. To imagine a state of modern civilization without railroad and steamboat transportation would be about as rude a tax on the builder of Spanish castles as to imagine life without air. The common carriers have become absolutely essential to existence and to the interchanges of commerce. But it is a serious reflection that they are not always used to the best possible advantage.

What is not generally appreciated is that a fault exists in the method of "hooking up" modern transportation and modern commerce. Modern industrialism, especially where conducted on a large scale, is more intimately related to transportation. The wholesale producers buy their coal by the train load and turn the gondolas upside down and shake them to get out the dust, rather than to unload them by the scoopful; they run tracks through their plants and handle all weights by electric cranes and air-lifts; they study the movement of every ounce of raw material and finished product, and count their savings on haulage in fractions of pennies.

But the merchant, the small manufacturer and the jobber, like the retail buyer, rely on human beef to move their stuff; while between the freight house and the store plods the faithful horse. It has been said that 90 per cent. of all freight which the railroads haul is rehandled at one end or the other by horses. And to a large extent unsatisfactory conditions in freight haulage, shortage of cars, warehouse congestion and slow freight movement may be charged to this cause. Whatever complaints with justice may be laid at the door of the common carriers, the fact remains that the weak link in the chain of transportation is the link that connects the shipper's platform with the freight yard and the freight yard with the ultimate consumer's kitchen door.

The difficulty with most shippers is that they regard the transportation problem as being entirely in the hands of the railroads. The science of economics teaches otherwise, and so do the experts in factory costs. But it is a difficult matter to show a man who has been long in business that he loses money by not viewing his transportation problem in the right light.

The secret of large industrial benefits is the multiplication of small profits. The transportation problem does not begin at the loading platform any more than it ends at the opposite freight terminal. It begins with the shifting of materials from the store room to the machine rooms, from the machines to the packing floor; and it ends at the consumer's boiler room, his boring mill, his showcase or his breakfast table, according as the case may be.

The commercial vehicle came into being like the railroad, more or less in answer to a real demand. But, like the railroad, it must be dovetailed into the business universe before it reaches its plane of highest value. The motor truck affords means of vast economies in transportation, but its use requires more or less overhauling of systems; its success demands that it be considered not as a substitute for the horse, but as a new form of link in the transportation chain.

In this way the introduction and popularization of the commercial motor is a work for transportation experts. It is an

engineering problem for specialists. The specialist succeeds where others fail, generally because he is able to magnify small details and to profit by the discoveries which reward his scrutiny. It behooves the automobile engineer who is working along this line not only to suggest the type and teach the mechanical details of operation, but to work out a schedule, plan a loading system, provide against such contingencies as breakdowns, bad roads, unavoidable traffic delays may cause; and finally to see to it that the goods are routed through the works in such a way that they will reach the shipping room in uniform quantities. Furthermore, it is plainly his work to arrange a method of accounting for the work of the motor equipment.

He must organize a transportation department, in other words, in the general manner indicated in these columns not long since in a more general treatment of the subject of advancing the cause of the commercial vehicle. His object must be not to draw close comparisons with the old horse traction equipment, even though such comparison might be favorable, but to show a profit in the new transportation department, show how and where it pays to handle it as a separate problem, and show how inseparably the motor vehicle link is welded into the chain.

How this line of work may affect the direct problem of motor vehicle haulage at once is apparent. For short hauls in city streets one type of vehicle may be desired, also, for long hauls an entirely different style may be necessary. Under certain conditions, as, for instance, where collections or deliveries are to be made at some distance from the central point, it may be that feeder service, with arrangements for rehandling and rehaulage on a trunk line basis would pay better than direct transportation. Roads, stops, speeds, loads, the comparative regularity of the service—all must be taken into account. Sometimes, it might be, the independent traffic man would recommend the use of vehicles hired on a ton-mile basis for one portion of the work as being more economical in operation than machines of a single class or type owned by the shipper. At other times he might see the wisdom of a complete and heavy outlay for vehicles and maintenance plant where superficial consideration would not seem to warrant it.

Everything points to the usefulness of the transportation expert who acts independently of the direct influence of any single manufacturer. This more especially in the case of the operator with large shipments to handle, to be sure, but also true of the small merchant and manufacturer. The field opens opportunities for the development of express and teaming concerns using the motor vehicle in ways vaguely defined at present, but logically evident as probabilities.

The only difficulty is that prospective users of commercial motor cars do not appreciate the need of overhauling their shipping methods in order to get the best out of the business as well as to use the motor to the best possible advantage. Gropingly, they reach a hand to the motor wagon salesman, and if their needs are relatively simple, it is quite likely that they profit by following his advice. If their needs are more complex, however, especially if they fail to grasp the real significance of the transportation problem as it applies to them, they are apt to afford the salesman little opportunity to carry out his educational work or to advise them to their own, and his, best advantage.

Some time the local transportation expert is destined to have general recognition. When that time arrives, his influence will be helpful and strong for the advancement of the motor business vehicle. Until that time, however, the task of the salesman is destined to be beset with difficulties, and, if like the average tailor, he sometimes turns out a misfit, or gets stranded with uncalled for goods, it must be remembered that the fault may not be entirely his. Better that, than that he should be altogether inactive at all events.

#### The Gears that Warner Makes.

Setting forth in a concise and comprehensive manner the design and specification features of its product, the Warner Gear Co., Muncie, Ind., just has issued a new catalog. The line includes steering gears of the worm type, with stationary spark and throttle controls placed above the spider; transmissions, in both sliding pinion selective and planetary types; side lever groups, designed for either H-segment or fulcrum change gear lever construction; and differential gears of both the spur and planetary patterns. Each of the four groups of parts is produced in forms suitable for use on pleasure cars, taximeter cabs, light commercial vehicles and trucks. The matter consists of half-tone illustrations of the parts, interspersed with working drawings on which the principal dimensions are shown.

#### To Clean the Cooling System.

It is a good plan to flush out the cooling system occasionally by opening all the drain cocks while the engine is running and then turn a hose into the radiator filling cap. The water should be allowed to waste from the system until it is observed to be running perfectly clear and free from the little spurts which indicate the presence of air. To permit dirt to accumulate in the cooling system is rapidly to impair its efficiency.

#### Unusual Method of Obtaining Pressure.

Ordinarily it might be supposed that the failure of the hand pump, which is used to replenish the pressure in the fuel tank

when the engine is not running, would put the car out of business temporarily, unless there happened to be sufficient pressure in the tank to start with. According to an overseas expert, however, there is still another way of compressing air in the tank short of attaching a tire pump to it. That is to block up the muffler tail pipe temporarily and then crank the motor. In the course of a few strokes of the pistons, sufficient pressure will accumulate in the exhaust manifold and muffler to raise the check valve, thus forcing air into the pressure line and so to the tank.

#### Rotary Valves for Two-Cycle Engines.

Discarding the automatic suction valve for admitting the mixture to the crank case, the builders of the Deloche two-cycle engine, a foreign innovation, employ a rotary valve. For the single cylinder unit praiseworthy simplification is effected by the original device of using a hollow crank shaft with radial ports communicating with the carburetter and crank case, respectively. For the two- and four-cylinder motors, this ingenious scheme has been abandoned in favor of an independent rotary valve which, nevertheless, takes the form of a hollow shaft with ports opening into each crank pit.

#### How Aluminum Paint is Made.

Aluminum paint, once so popular as a disguise for the rough-finished parts of the cheaper grades of car, instead of being a true paint actually consists of metallic aluminum in finely pulverized form held in suspension in the sizing by which it is made to adhere to the surface to which it is applied. To secure the metal in proper form, air or gas is blown through a mass of it which is in the molten state while at the same time it is agitated violently. In this way a spongy or granulated mass is formed which is readily pulverized and polished.

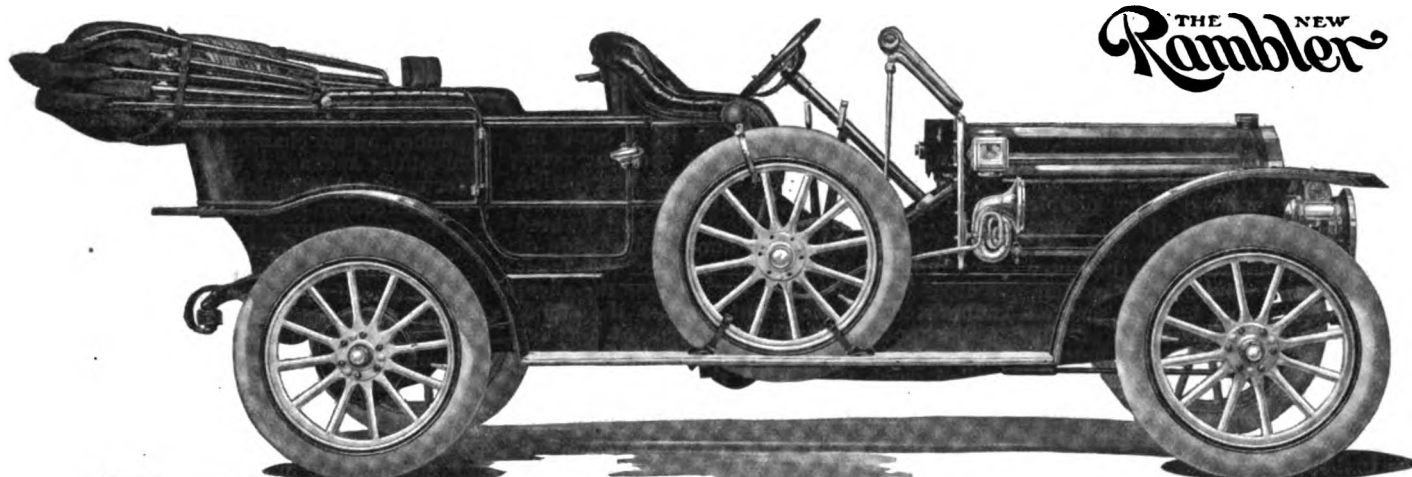
#### Novel Provision for Spare Tire.

With the idea of removing the spare tire from the running board a foreign body builder has adopted the plan of arranging to carry it inside the tonneau secured to the back of the front seat. For this purpose a curved depression is formed in the floor parallel with the seat so that the tire casing is afforded a good foothold and is brought down into an unobtrusive position. The arrangement, of course, is applicable only to cars having rather a long tonneau and not encumbered with extra seats.

#### What P. D. Q. Means in Memphis.

The P. D. Q. Co. is the unusual style of a concern which has been formed in Memphis, Tenn., but its title does not mean what you think it means. The initials stand for "Packages Delivered Quickly," which is the purpose of the concern. It has ordered five Monitor delivery wagons to carry on the work.





THE NEW  
**Rambler**

Rambler Fifty-five, 45 H. P., \$2500  
with Magneto, Lamps, Presto-Lite Tank and Tools.



*Rambler workman watching  
indicator which registers  
any variation between  
gear centers.*

Service depends upon the quality of steels used in vital parts such as transmission gears and the accuracy attained in the making. Every Rambler gear is subjected to most exacting tests, the most delicate instruments being used to detect the slightest variation which might, by increasing friction, detract from the smooth running qualities of the car.

# Thomas B. Jeffery & Company

Main Office and Factory: Kenosha, Wisconsin

Branches: Chicago, Milwaukee, Boston, Cleveland, San Francisco

## RECENT PATENTS.

959,957. Protector for Pneumatic Tires. Robert J. Morrison, St. Louis, Mo. Filed Dec. 24, 1909. Serial No. 534,828.

A wire protector comprising transverse inner pliable strips having extensions at both ends formed to provide loops, transverse metal strips overlying the inner pliable strips, a circumferential outer pliable band surrounding all of said strips, rivets passing through the metal strips and connecting the inner pliable strips to the outer pliable band, adjustable draw rings extending through said loops, and buttons secured to one of said metal strips, one end of said pliable band being provided with button-holes adapted to receive said buttons.

959,978. Steering Mechanism for Automobiles. Cyra B. Wattles, Providence, R. I., assignor to Providence Gas Motor Company, Providence, R. I., a Corporation of Rhode Island. Filed Aug. 3, 1908. Serial No. 446,573.

1. A steering attachment for automobiles comprising in combination with an axle, and a connecting rod, a base block secured on said connecting rod, a bi-branched member pivoted on said base-block, means to oppose the rotation of said member and means to tilt said member against the pressure of said opposing means.

960,072. Explosive Engine Starter. George Burson, Winamac, Ind. Filed Jan. 19, 1909. Serial No. 473,060.

The combination of a motor, a motor actuated shaft, a tank adapted to contain fluid under pressure, means for compressing fluid therein, a motor starting device embodying a cylinder to which the compressed fluid is fed, a rotary piston working in said cylinder and mounted loosely on the motor actuated shaft, a clutch connecting said piston to the motor actuated shaft, a valve controlling the admission of fluid to said cylinder, and a manually operated element acting to simultaneously shift the clutch and valve.

960,080. Carburetter. Thomas J. Fay, New York, N. Y., and John Magee Ellsworth, Bernardsville, N. J. Filed Nov. 15, 1906. Serial No. 343,505.

1. A casing having an air inlet port, an explosive charge inlet port, and an exhaust port, a coil spring surrounding said explosive charge inlet port, a valve rod, a stop on said valve rod for limiting the expansion of said spring, a second coil spring surrounding the air inlet port, a third spring for preventing the expansion of the second mentioned spring until a definite suction pressure exists within the casing, means for varying the tension of the last mentioned spring, and means for varying the position of the stop.

960,119. Automobile Tire. Howard S. Shafer, Nazareth, Pa. Filed May 27, 1909. Serial No. 498,668.

A tire provided with anti-skidding and puncture-proof means comprising a series of rivets molded in the tread portion of the tire with their heads disposed beneath the outer surface thereof and their stems extending flush with the outer surface, and other series of longer rivets arranged in the tread portion of the tire with their heads disposed beneath and alternating with those of the first-mentioned rivets and their stems extending flush with the outer surface of the tread portion.

960,132. Automobile Engine Hood. Alex-

ander Winton and Harold B. Anderson, Cleveland, Ohio, assignors to The Winton Motor Carriage Company, Cleveland, Ohio. Filed Feb. 1, 1909. Serial No. 475,422.

The combination with an automobile engine of the explosive type of a hood inclosing the engine, a water radiator occupying the front end of the hood and having air passages communicating with the interior of the hood, a flexible sheet located at the front end of the hood and outside of the radiator and fitting against the front face of the radiator, a support for the sheet supported by the front end of the hood, said support being in the form of a roller upon which the sheet may be rolled and unrolled, and the sheet thereby caused to either close the front end of the hood or to be removed therefrom to leave it open, and the purpose described.

960,178. Vehicle Spring. Abel M. Kindwall, Minot, N. D. Filed Dec. 29, 1909. Serial No. 535,423.

The combination with a vehicle body and running gear, of a spring pivotally connected intermediate its ends to the body, and links pivotally connected at their ends to the running gear and to the ends of the spring.

960,329. Speed Indicator. Alexander May Hudson, New York, N. Y. Filed July 12, 1909. Serial No. 507,142.

1. In a speed indicator, the combination with a shaft, of a sleeve movable lengthwise upon the shaft, the said sleeve having slots extending lengthwise at one end and upon opposite sides, the said shaft having a pin extending diametrically and engaging the said slots in the sleeve, a body having a central aperture, the shaft and sleeve extending through the said aperture of the body and the body being pivotally supported by the ends of said pin in the shaft, a connecting rod joining the said body and the said sleeve, a spring arranged on one side of the said body and disposed to act against the sleeve and against the ends of the said pin in the shaft whereby the said body is yieldingly held in an inclined position, and means acting upon the sleeve on the other side of the body whereby the yielding pressure upon the said sleeve is adjusted.

960,530. Muffler. Thomas C. Forbes, Los Angeles, Cal., assignor to Los Angeles Rotary Gas Engine Company, Los Angeles, Cal., a Corporation of California. Filed July 21, 1909. Serial No. 508,855.

1. A muffler for rotary engines comprising a continuous annular chamber rotating with the engine and having a communication with the exhaust port of the cylinder, and having a discharge opening.

960,598. Igniting System for Explosive Engines. Frank W. Springer, Minneapolis, Minn. Filed Nov. 5, 1906. Serial No. 341,971.

1. In an igniting system for explosive engines, the combination with a main timer and an auxiliary timer co-operating to produce a coincident circuit closing arc of contact, each of said timers comprising a rotary circuit closing contact, of a governor operative to adjust the said contact of said auxiliary timer with respect to the circuit closing contact of said main timer, to thereby vary the circuit closing arc of contact under varying engine speeds, substantially as described.

960,601. Carburetter. Alfred C. Stewart,

Los Angeles, Cal. Filed Feb. 23, 1909. Serial No. 479,627.

1. A carburetter comprising an oil supply chamber, means for maintaining a definite level of oil in said chamber a well having communication to receive oil from said chamber, an air chamber provided with inlet and outlet means, a throttle valve in said inlet means said outlet means having means for connection to suction applying means, oil communicating means extending into the air chamber in the path of the suction therethrough and extending downwardly into said well to suck up oil therefrom, and communicating means extending from said well to a point in the air inlet at the outside of the throttle, whereby a condition of suction is produced in said well which is less than the condition of suction at the outlet of the oil communicating means, and means for admitting air to the oil chamber for maintaining in the oil chamber a barometric pressure in excess of that in the well.

960,688. Driving Mechanism for Motor Vehicles. Freeman M. Odson, Chicago, Ill., assignor to Commercial Motor Car and Engine Co., Chicago, Ill., a Corporation of Illinois. Filed June 15, 1908. Serial No. 438,482.

1. In friction driving mechanism, the combination of a wheel having a friction surface, a friction pulley operatively connected to be rotated by said surface and mounted for cycloidal movement, means for causing the pulley to be operated in a circular path when it is rotated by said friction surface, and means for rendering the pulley inoperative for circular movement.

960,690. Starting Device for Explosion Engines. Edward N. Pagelsen, Detroit, Mich. Filed Sept. 23, 1909. Serial No. 519,207.

1. In a starting device for multi-cylinder explosion engines, the combination of a carburetter and pump, a selecting valve to the cylinders of the engine.

960,697. Carburetter. Louis Plein, Chicago, Ill. Filed July 26, 1909. Serial No. 509,666.

1. In a carburetter, the combination of a fuel duct therefor; a stationary needle valve stem for said duct; a perforated plate adjustable toward and away from said needle valve; a tubular member yieldingly mounted over said plate; and means connecting the interior of said tubular member with the intake of an engine, substantially as described.

960,752. Spark Plug for Explosive Engines. Joseph P. White, Savannah, Ga., assignor of one-half to Alexander P. Solomon, Savannah, Ga. Filed May 11, 1909. Serial No. 495,291.

1. A spark plug for explosive engines provided with terminals and having a restricted vent passage communicating with the ignition zone of its terminals and a relatively larger gas expanding passage to receive the gas from said vent passage and terminating in a restricted outlet, said passages and outlet being of a size to permit them to remain permanently open to the atmosphere to permit discharge of consumed gases from said zone during the operation of the engine.

960,763. Headlight Controller for Automobiles. Edward A. Adams, Liberty, Neb. Filed Aug. 20, 1908. Serial No. 449,457.



## PETITION MORA INTO BANKRUPTCY

**Creditors Refuse to Hold Longer to a Policy of Inaction—Liabilities Reach Almost a Half Million.**

After months of difficulties with its creditors, the Mora Company, of Newark, N. Y., making the Mora car, has been petitioned into involuntary bankruptcy, with total liabilities reliably estimated at \$476,000.

The creditors of the company have been restive for many weeks, and the company frankly has told them that it could not pay at present and that if matters were pressed the creditors would have to take their chances in whatever a bankruptcy action might yield. On this ground it urged that it be permitted to continue as a going concern. At a meeting of the creditors about three weeks ago, however, the company was asked for a complete statement of its financial condition, which was refused, the refusal to some extent being responsible for the present action.

Judge John R. Hazel, of the United States District Court for the Western District of New York, at Buffalo on the 16th inst., adjudged the company bankrupt, and appointed George W. Todd and Horace McGuire as temporary receivers. Three Rochester firms appear among the petitioning creditors, including the W. P. Davis Machine Co., \$8,116.14; Myers Advertising Agency, \$17,081.74, and Clum & Atkinson, \$25,000, while the New Process Rawhide Co., of Syracuse, N. Y., also appears on the petition, with a claim for \$16,064.98. Plumb & Plumb, attorneys of Buffalo, appeared for the creditors, while Hon. William W. Armstrong is attorney for the bankrupt.

## Big Buggy Makers in Automobile Project.

The Banner Buggy Co., of St. Louis, Mo., one of the largest producers of buggies, is making ready to engage in automobile

manufacture. Russell E. Gardner, the president of the company, has organized the Banner Automobile Co., incorporated under Missouri laws. Hugh Cartwright, vice-president of the Banner Buggy Co., and Elmer L. Roninger, a department manager, are associated with Gardner in the enterprise. Gardner states that the company will not commence active manufacturing for some time, but that it intends ultimately to build a plant with a capacity of 20,000 machines a year.

## Willys-Overland Increases to \$6,000,000.

Carrying out the program announced some time ago, the Willys-Overland Co., of Toledo, O., has increased its capitalization from \$2,000,000 to \$6,000,000, for the purpose of merging the Overland Automobile Co., of Indianapolis, Ind. The increase provides for a total capitalization of \$2,000,000 in 6 per cent. cumulative preferred stock and \$4,000,000 in common.

## Accessories Destroyed in Hartford Fire.

Fire of unaccounted for origin destroyed automobile goods and supplies to the value of \$15,000 belonging to the Post & Lester Co., of Hartford, Conn., in Hoadley's warehouse on the 15th inst. The building itself was damaged to the extent of about \$10,000. A similar fire occurred last September, when the Post & Lester Co.'s goods in the building were damaged. The losses are covered by insurance.

## Embree Makers in Difficulties.

Involuntary bankruptcy proceedings have been brought against the Embree-McLean Carriage Co., of St. Louis, Mo., makers of the Embree car. The largest claim of the petitioning creditors is a note for \$2,500, held by Herman Naue.

## Glass Becomes Michelin Treasurer.

R. E. Glass, who early this year was made a director of the Michelin Tire Co., of Milltown, N. J., has been elected treasurer of the company. He succeeds E. Fontaine, who recently resigned.

## URGE INJUNCTION AGAINST FORD

**Selden Attorneys Want it in Judge Hough's Forthcoming Decree—Significant Comments by the Court.**

In a final attempt to have the Ford Motor Co., of Detroit, Mich., legally enjoined by the United States Circuit Court from so much as turning a wheel in its big factory, for the manufacture of automobiles, the attorneys for the Association of Licensed Automobile Manufacturers on the 19th inst. presented their arguments in the concluding hearing relative to the decree in the famous Selden patent case which was decided last September. Opposing arguments by the Ford attorneys likewise were presented.

Judge Hough's decision in September, in the United States Circuit Court for the Southern District of New York, sitting in New York City, was in favor of George B. Selden and the Electric Vehicle Co. as against the Ford Motor Co. and Panhard & Levassor, the latter companies being found to infringe the Selden patent, No. 549,160, which is claimed to cover all forms of the modern gasoline automobile. But the filing of the decree, following the decision, has been delayed until Judge Hough could hear the arguments as to whether the name of the Columbia Motor Car Co. properly could be substituted for that of the Electric Vehicle Co., which it succeeded, and as to the propriety or wisdom of issuing an injunction against the defendant companies, from manufacturing or selling their automobiles in the United States. This hearing took place on Tuesday of this week at Narragansett Pier, R. I., where Judge Hough was keeping an engagement to speak before the Commercial Law League of America.

In asking that Judge Hough issue an injunction against the Ford company, Attorney Samuel R. Betts, who with Frederic P. Fish represented the Selden forces, de-

clared that the Ford company should not be permitted to get off with the mere filing of a bond, no matter how adequate the bond might be. He maintained that nothing short of an injunction would be entirely satisfactory to the complainants.

"When the Ford company started," said Betts, "it was a small concern. It has advertised this suit and has held itself up as an opponent to a monopoly, thereby extending the business enormously. Its business has been built up in defiance of the patent rights, and the company should have been enjoined at the outset. The company has never had the right to build a single car.

"All this has been done in the face of warning that it was infringing upon the patent rights. Now they say that they should not be enjoined because they are such a large concern, with \$8,000,000 in assets, and able to pay any amount of damages to the complainant that may be set in the final settlement of the suit."

The Ford attorneys, W. Benton Crisp and Edmund Wetmore, in asking that the decree omit the injunction feature and that the court be satisfied with the exaction of a bond, showed that not only is the Ford company, with its \$8,000,000 in assets, sufficiently responsible financially to answer all demands, but that it employs some 4,000 men at its factory and has branches in seventeen cities, all of whom would be more or less hard hit in case the company were enjoined from manufacturing or selling.

In the course of the hearing Judge Hough indicated that he himself inclines toward injunctions, where defendants have been found by the court to be infringing. Some of his confreres on the bench, however, do not share his inclination very strongly. Furthermore, the case is to be carried to the United States Circuit Court of Appeals immediately the decree is entered, and the latter court might cancel or annul an injunction against the Ford company if he were to issue it, so that it would be of only brief duration and would impose more hardship and inconvenience than would be proportionate to its practical effect in the patent litigation.

Having thus made it appear that an injunction is not likely to be a feature of his forthcoming decree, Judge Hough listened to the licensed attorneys' views as to what the bond requirements should be. Attorney Fish asked that the court fix \$500,000 as the amount of the Ford bond and \$50,000 for Panhard, and that the defendants, after filing these bonds, respectively, should be required to pay into court amounts equal to royalties on their cars as they sell them in the future.

Judge Hough arranged for the hearing this month, during his vacation, in order that the matter might be expedited and carried before the Court of Appeals next October, the decree itself is expected during

the coming month. Upon entering the decree, the defendants will at once file their appeal. A special, preferential position on the calendar has been reserved for the case by the Court of Appeals, so that it may have an early hearing, as the Selden patent expires in 1912. All the evidence and testimony of the case, as tried before Judge Hough, being available for the higher court, it is probable that the trial will be quite brief, being largely argumentative on the purely legal phases. The case cannot be carried higher than the Circuit Court of Appeals, unless the United States Supreme Court should choose to review it because of some doubt as to the appellate court's findings.

#### General Motors to Issue More Paper.

Not content with a raise of capitalization from \$12,000,000 to \$60,000,000, the "genius" of the General Motors Co. is contemplating giving the lithographers and paper makers another big job, by still further increasing the capitalization of the merger corporations. Holders of the common stock also are afforded the prospect of another dividend—again in stock, however, and not in money. From the New York offices of the company, W. C. Durant has issued a letter to the stockholders, as follows:

"I am pleased to tell you that a deal is pending, which, if consummated, will very materially enhance the value of the common shares of this company. In order that there may be no misunderstanding, I will say that no merger is contemplated. Briefly stated, we have in view the increased capitalization of the General Motors Company, based somewhat on the earning capacity of the constituent companies, which will approximate \$12,000,000 net for the year 1910, giving to our common stockholders not less than five for one in the new securities in exchange for the present holdings."

#### Shaler Lets Contract for New Factory.

The C. A. Shaler Co., of Waupun, Wis., making Shaler electric vulcanizers, has awarded contracts for the construction of a new factory. The main building is to be of concrete, and electric power transmission is to be used exclusively. When the new building is completed, the company will have, with its original factory and two recent extensive additions, the largest plant in the United States devoted to the manufacture of rubber tire vulcanizers.

#### Says Morgan Made Pelletier Resign.

In discovering what has been known to not a few people in the trade for some time, that E. LeRoy Pelletier resigned as advertising manager of the E-M-F Co., of Detroit, Mich., before sailing for his present European sojourn, the New York World also has discovered what it believes to be the reason. In a sensational account, the

World explains that it is all because J. Pierpont Morgan "has a mad on" Pelletier for mentioning the money king's name too freely in connection with E-M-F and Studebaker affairs. Morgan's displeasure, it is indicated, resulted in the severance of Pelletier's connection with the company, as it was Morgan who financed the purchase of E-M-F for the Studebakers.

#### Will Make Yale Professor's Engine.

With an engine invented by a Yale college professor as the basis for the project, ex-Senator John M. Brady, of Hartford, Conn., is organizing a \$200,000 concern to be known as the Rex Motor Company of America, and which is to manufacture automobile motors in Hartford. The motor is of a somewhat radical type developed by Professor J. J. Hogan, of Yale University.

#### Jackson Carriage to Make Cars.

The Jackson Carriage Co., of Jackson, Tenn., is embarking in the manufacture of automobiles, and thereby will perpetuate one of the town's "infant industries." For this purpose it has taken the plant formerly occupied by the Southern Motor Works, which latter recently moved to Nashville, Tenn.

#### Why Two Factories Won't be Built.

Caution against undue or untimely expansion is assigned as the reason why Toledo, O., is to be disappointed as to the building of factories in that city this year for the Castle Lamp Co. and the Warner Mfg. Co., respectively. Both concerns are described as "waiting to see what happens in 1911."

#### Champion Spark Plug Moves to Toledo.

The Champion Co., of Boston, Mass., making Champion spark plugs, has moved its factory to Toledo, O., with headquarters at 609 Jefferson avenue, and in the future will be known as the Champion Spark Plug Co. For the eastern trade an office with full stock will be maintained at 394 Atlantic avenue, Boston, Mass.

#### Straub Again Sails to Europe.

Jack L. Straub, secretary and treasurer of the J. S. Bretz Co., of New York, has sailed for a five weeks' business trip in Europe. He will visit the plants that make F. & S. bearings, U. & H. magnetos, Bowden wire mechanism and other motor car equipment devices imported by the Bretz company.

#### Carburetor Concern in Stratford.

The Bridgeport Carburetor Co. is a new industry in Stratford, Conn., having taken a factory on Johnson avenue for the manufacture of carburetors. John Miller is president, with George Youngs as secretary and treasurer, and Adam Blackert as general manager.



**ASKS HELP IN PAYING THE PIPER**

**Mysterious Association Attempts to "Assess" Unlicensed Makers—Seeks to Collect for Unauthorized Publicity.**

An aftermath has developed to the brief advertising spasm of the mysterious Association of Motor Car Manufacturers, of Detroit, Mich., and those of the unlicensed makers of motor cars who last May were surprised to find their names at the bottom of a flaring newspaper advertisement attacking the Association of Licensed Automobile Manufacturers are being invited to pay cash for the sensation. The advertisement occupied a large space in daily papers in almost all the leading cities, and was in the form of a denunciation of "an attempt by the automobile combination to destroy the independent automobile manufacturers of America."

Making its appearance shortly after the formation of the Association of Motor Car Manufacturers in the office of a Detroit lawyer, it readily was "spotted" as an association manifestation, but instead of being signed by the association it concluded with a list of almost 100 unlicensed makers, giving the impression that they all were banded together as subscribing to the campaign. Such concerns as Ford and Jeffery were prompt in disclaiming any connection with the alleged association and in indicating that the use of their names was entirely unauthorized, and only a short time elapsed before several concerns whose names appeared in the list became licensees under the Selden patent.

Nevertheless, the secretary of the Association of Motor Car Manufacturers now is writing to the companies whose names appeared, asking them to "cough up" for the publicity they received. It would seem that the bill for the advertising is not yet fully paid, and the association is casting about for means to raise the necessary money. If the association be worried over the matter, its anxiety is nothing compared with that of the advertising agents who ordered the newspaper space and who are being held responsible by the publishers.

Instead of being quickened into joining the association in consequence of the advertisement and the activity which it indicated, many of the unlicensed makers resented the unauthorized use of their names. For this reason, if for nothing more, they are wroth indeed at being asked to pay for the ad. Others frankly comment on the peculiar business conception that would lead an association to incur debt in such a way and then ask non-members to meet the obligation. The bill for the newspaper space, being an aggregate from a big list of papers, is of formidable size, but despite the proportional division of the assessment,

as explained in the secretary's letter to each company, the unlicensed makers give no evidence of undue haste in forwarding their checks to help the association "make good" to the advertising agents.

**Wood to Reproduce British Truck.**

Since its recent incorporation with \$3,000,000 capital, the Wood Automobile Mfg. Co., of Kingston, N. Y., which enjoys close relations with Wyckoff, Church & Partridge, of New York City, has been quietly advancing its manufacturing plans, and it transpires that the company is to engage in commercial vehicle manufacture on a large scale, making an American reproduction of a British truck. The concern has effected an agreement involving something over \$100,000 for the American rights for the Commer-Car, made by the Commercial Cars, Ltd., of Luton, England, and it has engaged Julian A. Halford, of the latter company, for the production end of its business. It is planned to make about 1,000 three-ton trucks per annum at the Kingston factory, using Polack tires, of British manufacture. The Commer-Car, which, while it may be a "comer" in the vernacular sense, gets its name from a shortening of the word "commercial;" it is made in a large number of models. To supplement its own offerings of the three-ton size, the Wood company will import other models from Great Britain.

**To Assemble Electrics in Rochester.**

The Empire State General Vehicle Co. has been formed in Rochester, N. Y., for the purpose of taking over the electric automobile truck business of the Rochester Railway & Light Co. An assembling plant for electric vehicles is to be built on North Goodman street at the Circle, the parts and equipment being obtained from the General Vehicle Co., of Long Island City. The company, which has been incorporated with \$100,000 capital, has the following officers: Robert M. Searle, president; Granger A. Hollister, vice-president; James T. Hutchings, secretary and treasurer.

**Sweet to Act for Matheson Creditors.**

Creditors of the Matheson Motor Car Co., of Wilkes-Barre, Pa., which is temporarily in the hands of receivers, have chosen William M. Sweet, manager of the Motor and Accessory Manufacturers, as secretary of the creditor's committee which has been formed. The arrangement does not officially involve the Accessory association in the receivership proceedings in any way.

**Trucks to be Made in Louisville.**

Frank Weber & Sons, of Louisville, Ky., makers of carts and coal wagons, have developed a motor truck and will establish a factory for its manufacture. Ground has been purchased at Jackson and Lampton streets as a site for the new structure.

**DOES NOT GET HIS \$7,500 BACK**

**Complainant Against Hol-Tan Finds Apparent Victory Turned to Defeat—Involves Dying Man's Signature.**

It will be still quite a little while before Edward T. Bedford, a millionaire automobile enthusiast, recovers \$7,500 from the Hol-Tan Co., of New York City, for alleged breach of warranty on a Fiat car which was sold to him when the Hol-Tan company had the Fiat agency, and there is no impossibility about his never getting it all, despite the fact that he seemed to have received a favorable decision from a referee in the case. The reason why he does not get the money is that the Hol-Tan company has brought evidence to show that the referee's signature is not genuine, and Supreme Court Justice Ford has refused to approve the reference.

The decision of the referee, Frederic S. Wait, who died on June 30, was given ten days before his death. He was very ill at the time, but was propped up in bed and held by a nurse while he tried to sign his name at the end of the report with a lead pencil. His hand shook so that an assistant in his office guided his hand as the name was written. Later the pencil lines were traced in ink. After the report had been filed, the Hol-Tan attorney said that the signature and certain "alterations in the findings" were not in the referee's handwriting. Bedford's lawyer declared that the changes were made with referee's consent. Justice Ford did not discuss the regularity of the papers. He dismissed the reference, he said, because "owing to serious illness the referee was unable to give the case such attention as a litigant has a right to expect." If the complainant still desires to recover from the automobile company, he will be compelled to have the case tried over again.

**Pioneer Begins Building its Factory.**

The Pioneer Car Mfg. Co., of Oklahoma City, Okla., has progressed in organization to the extent of electing its officers and starting the construction of its factory buildings. The officers are Sidney L. Brock, president; W. R. Roberts, former owner of the Pioneer Automobile Co., at El Reno, vice-president and general manager; W. R. Davis, secretary and treasurer.

**Wright Enlarges Name and Scope.**

The Wright Wrench Mfg. Co., of Canton, Ohio, has changed its name to the Wright Wrench & Forging Co., as a forging department is included in the new factory into which the company just has moved. In the future the company will do a general forging business in addition to manufacturing Wright wrenches.

**THE WEEK'S INCORPORATIONS.**

Detroit, Mich.—Boulevard Auto Repair Co., under Michigan laws, with \$15,000 capital.

Cleveland, O.—M. and M. Co., under Ohio laws, with \$15,000 capital; automobile accessories. Corporators—G. C. McLain and others.

Houston, Tex.—Houston Motor Club, no capital. Corporators—G. J. Palmer, David F. Burks, Harvey T. Wilson and H. C. Mosehart.

Dallas, Tex.—Dallas Motor Car Co., under Texas laws, with \$20,000 capital. Corporators—Frank Leahy, W. H. Burt and D. G. Cage.

Indianapolis, Ind.—Auto Sales Co., under Indiana laws, with \$25,000 capital. Corporators—W. D. Case, M. G. Beckner and Cass Connaway.

St. Louis, Mo.—American Welding and Automobile Repair Co., under Missouri laws with \$5,000 capital. Corporators—August W. Mewes, H. G. Donigan and Fred Essen.

Omaha, Neb.—Omaha Motor Club, under Nebraska laws, with \$10,000 capital. Corporators—W. D. Hosford, W. L. Huffman, George F. Reim, L. E. Doty and Otto P. Nestman.

Chicago, Ill.—Benz Motor Co., under Illinois laws, with \$2,500 capital; to deal in automobiles and accessories. Corporators—Emil C. Wetten, Charles H. Pegler and Charles V. Clark.

Greenfield, Ind.—Greenfield Auto-Traction Co., under Indiana laws with \$10,000 capital; to operate a motor transportation line. Directors—G. A. Carr, J. F. Webb and W. C. Welborn.

Chicago, Ill.—Newbury Auto Livery Co., under Illinois laws, with \$5,000 capital; automobile livery and garage. Corporators—Joseph A. McNerny, John F. Clare and Edward V. Peterson.

New York City—W. M. P. Motor Co., under New York laws, with \$25,000 capital; to manufacture motors. Corporators—L. R. Walton, F. D. Preston, New York City; L. R. Moody, Bayside, L. I.

Camden, N. J.—Victor Motor Car Co., under New Jersey laws, with \$150,000 capital; to manufacture and deal in automobiles. Corporators—Julia H. and J. F. Harrington, H. C. Ochterbeck.

Chicago, Ill.—Farrington-White Co., under Illinois laws, with \$10,000 capital; to manufacture automobiles and supplies. Corporators—William H. Farrington, Frank B. and William B. White.

Boston, Mass.—American Rapid Transit Co., under Massachusetts laws, with \$200,000 capital; general automobile business. Corporators—George A. Smith, George A. Sweetser and Fred L. Townsend.

Jersey City, N. J.—Independent Owners' Garage Co., under New Jersey laws, with

\$300,000 capital; to deal in automobiles and operate garages. Corporators—Edward L. Young, Edward I. Edwards and Edwin F. Smith.

Hyde Park, Mass.—New England Motor Truck Co., under Massachusetts laws, with \$50,000 capital; automobiles. Corporators—Boynton W. Piper, Hyde Park; Harry A. Henderson, Mattapan; Paul F. Spain, Cambridge.

Providence, R. I.—Taxi-Service Co., under Rhode Island laws with \$110,000 capital; to deal in motor cars and inventions and patents relating thereto. Corporators—Michael W. Morton, William H. Draper and Edward C. Sweet.

Oklahoma City, Okla.—Regal Motor Sales Co., under Oklahoma laws with \$10,000 capital. Corporators—O. H. and Q. V. Lee, Charles E. Kimbrough, Oklahoma City; F. W. Haines, Bert and C. L. Lambert, Detroit, Mich.

Patchogue, N. Y.—Interstate Auto Trolley Co., under New York laws, with \$50,000 capital; to operate self-propelling stages in Nassau county. Corporators—James, May and Mollie Thom, Hopewell and William Vix, all of New York City.

Indianapolis, Ind.—Great American Automobile, Auto Truck & Aeroplane Co., under Indiana laws, with \$1,000,000 capital, two-thirds preferred, one-third common stock; to manufacture automobiles, trucks and aeroplanes. Corporators—Samuel Quinn, Jr., A. J. Bigley and others.

St. Louis, Mo.—Universal Storage Battery & Supply Co., under Missouri laws, with \$100,000 capital, fully paid; to manufacture and deal in storage batteries. Corporators—Paul L. Goodale, H. F. A. Spiegelberg, R. H. Murphy, Roxe Goodale, Max F. Ruler, A. A. Poland, T. A. Ruler.

**Increases and Decreases of Capital.**

Beatrice, Neb.—Jonz Auto Co. increases capital from \$25,000 to \$1,000,000.

Flint, Mich.—Champion Ignition Co. increases capital from \$60,000 to \$100,000.

Detroit, Mich.—Brush-Chicago Motor Co. increases capital from \$11,000 to \$12,000.

El Reno, Okla.—Pioneer Automobile Co. increases capital from \$20,000 to \$50,000.

Detroit, Mich.—Michigan Auto Parts Co. increases capital from \$50,000 to \$100,000.

Moline, Ill.—Velie Motor Vehicle Co. increases capital from \$300,000 to \$500,000.

Detroit, Mich.—Grabowsky Power Wagon Co. increases capital from \$300,000 to \$500,000.

Indianapolis, Ind.—The Commercial Car Co. increases capital from \$100,000 to \$500,000.

Detroit, Mich.—American Motor Castings Co., increases capital from \$125,000 to \$200,000.

Louisville, Ky.—Reimers Motor Car Co. increases capital from \$10,000 to \$50,000, to

be divided into \$30,000 common and \$20,000 preferred stock.

Clintonville, Wis.—Badger Four Wheel Drive Auto Co. increases capital from \$45,000 to \$110,000.

**New Belle Isle Disclaims Ryno.**

The New Belle Isle Motor Co., of Detroit, Mich., making gasoline engines, is concerned lest it be mistakenly identified with the case of E. R. Ryno, who recently was tried in the Federal court in Detroit on the charge of fraud, by reason of his having failed to send automobiles to customers who forwarded money for the machines. Ryno was president of the Belle Isle Motor Co. at the time of his difficulties with his customers, but sold the business in March, 1909, to the new owners, who added the word "New" to the title to mark the complete change in ownership. The Federal jury has disagreed on Ryno's first trial, there being grounds for belief that negligence rather than fraudulent intent accounted for his failure to "deliver the goods" after receiving the various remittances.

**Wants a Million to Build Electrics.**

With the distinction that it purposes to make electric instead of gasoline machines, another new automobile company is being promoted in Detroit, Mich. A shaft driven machine, designated as the H. & F. electric, is being exhibited in connection with the project, which has as its backers Frank L. Hovey, proprietor of the Eldorado apartments, and F. E. Foulke, of Kansas City, Mo. It is announced that a million dollar company is being organized for producing the cars on a large scale.

**Small Company with Large Plans.**

The Small Motor Car Co. is another of embryonic automobile building projects in Detroit, Mich., and its organizer, John S. Small, indicates that the concern is to be incorporated with a capital of \$200,000, for the purpose of operating factories in Detroit and Winnipeg, Can. The intended product is a 25 horsepower, underslung runabout.

**Herkimer Hopes to Produce Cars, Too.**

Herkimer, N. Y., has promise of an automobile factory, in the launching of a motor car manufacturing project by Glen Clark, who will be associated with his father in the enterprise. The Clarks recently purchased the building belonging to the old Herkimer Mfg. Co., and it is being altered and equipped for automobile construction.

**Adams Succeeds Fosdick with Hol-Tan.**

T. E. Adams has been elected vice-president and treasurer of the Hol-Tan Co., of New York City, which imports the Lancia car. He succeeds Harry N. Fosdick, who resigned last week.

## IN THE RETAIL WORLD.

Guy L. Watkins is erecting a garage on Maple avenue, Birmingham, Mich.

The Glenn County Garage Co. is erecting a new garage building in Willows, Cal.

Blethen Bros., Dover, Me., have commenced the erection of a concrete garage.

Frank H. Duffee has opened a garage on Main street near Centre street, Malden, Mass.

A. L. Googins has completed a new garage at Prouts Neck, Me., and is ready for business.

Newport, R. I., has another garage. Wm. Quigley & Son are its owners. It is located on Market square.

Henry Christy has embarked in the automobile business in Madison, Ohio. He has taken the agency for the Hupmobile.

Soest Bros. have leased the premises 207 East Main street, Fort Wayne, Ind., which they will convert into an electric garage.

Patrick D. Skahen has been granted a permit to erect a garage at 422 South West street, Syracuse, N. Y. It will cost \$2,500.

The White Co., of Baltimore, Md., has completed the erection of a new garage at Mount Royal and Guilford avenues in that city.

Mayer Bros. are building a garage on Main street in Delta, Col. It will be the fourth structure of the sort in that little place.

The Schenk Co., Fulton, W. Va., have abandoned horses for automobiles. They are converting their livery stable into a garage.

The recently formed Beguelin-Buschart Motor Car Co., St. Louis, Mo., has located at 4390 Oliver street. It will handle the Selden car.

The St. Louis Overland Co. has changed its title to Overland Motor Car Co. It will continue business at 3907-11 Olive street, St. Louis, Mo.

Frank D. Gregory has opened a garage at 22 Commerce street, Derby, Conn.\* In addition to garage work, he will make a specialty of tire vulcanizing.

Fire on Sunday last, 17th inst., totally destroyed the garage of Kennitz & Bridgeman at Medina, N. Y. Nine automobiles were among the contents consumed.

Charles Sanford has placed contracts for the construction of a concrete garage on Coleman street, Bridgeport, Conn. It will be a two story structure, 32 x 55 feet.

The Clarksville Auto Co. has been formed in the Tennessee city of that name, to handle the Marathon car. A. C. Murray is manager of the new concern.

The Thames Garage, New London, Conn., has been discontinued. Executions levied by several small creditors induced the owner, George Keeney, to cry quits.

Andrew Gresch and Martin Connor are

building a two-story garage at York road and 69th avenue, Philadelphia, Pa. Its dimensions are 48 x 73 feet and its cost \$4,600.

The Susquehanna Motor Car Co., Wilkesbarre, Pa., has leased the building 37 West Market street, which is being refitted for its occupancy. The company has the Cadillac agency.

The Lane-Lynch Motor Co. has been organized in St. Louis, Mo., to sell the Owen car. W. E. Brearley, former manager of the local Franklin branch, will manage the new concern.

Brown & White Motor Car Co. is the colorful style of a new firm in New Orleans, La., which has been formed to sell Rambler cars. It is composed of Lee Brown and H. A. White.

The Crenshaw-Mills Auto Livery Co., Little Rock, Ark., has been succeeded by the firm of Crenshaw & Mills. The change was brought about by C. E. Mills's sale of his stock to Roy L. Mills.

Sanford Smith & Co., have succeeded the firm of Smith & Vosburg as proprietors of the Riverside Garage, Saranac Lake, N. Y. W. R. Vosburg has retired and his interest has been acquired by Fred Smith.

J. J. Bartram has purchased the Atlas Garage on New Hampshire avenue, Washington, D. C., which is devoted exclusively to electric vehicles. He has installed five rectifiers and purposes putting in five more.

A. F. Parkes, who has been selling the Parry car in Nashville, Tenn., has secured the agency for the Velie also, and hereafter will do business as the Velie-Parry Sales Agency. He is located at 1207 Broadway.

Contracts have been let for the erection of a garage at Jackson street and Broadway, Louisville, Ky., for the Broadway Automobile Co. The structure will be a two-story brick building and will cost \$10,000.

Frank C. Riggs, the Packard agent in Portland, Ore., has removed to 23rd street and Cornell road, where the new Packard service building is located. Previously, Riggs was located at Seventh and Oak streets.

Bert Brown and George Weck have formed a partnership and opened a garage at Scott and Third streets, Davenport, Iowa. Both are experienced automobile men. They have the agency for the Haynes car.

The Norcross Garage, Worcester, Mass., has taken possession of its new building at Commercial and Exchange streets. The structure at Foster and Commercial streets, which it vacated, has been leased by the Belmont Auto Co.

D. O. Royster, having disposed of his interests, the title of the Heir-Royster Automobile Co., 3432 Shenandoah avenue, St. Louis, Mo., has been changed to the Henry Heir Automobile Co. Appersons, Carter-

cars and De Tambles will continue to be carried.

The B. C. K. Motor Car Co. of Philadelphia has been purchased by W. D. Shepherd and T. W. Pritchard, who comprise the Krit Sales Co. of that city. The purchase carries with it the agency for the Klinekars, which hereafter will be handled in connection with the Krit.

Fire, caused in some way during the filling of a tank with gasoline on the 13th inst., gutted the garage of Matthew De Freest, 46-48 Hamilton street, Albany, N. Y. De Freest operated a taxicab service and lost 11 cabs in the flames. The loss, which is covered by insurance, is placed at \$25,000.

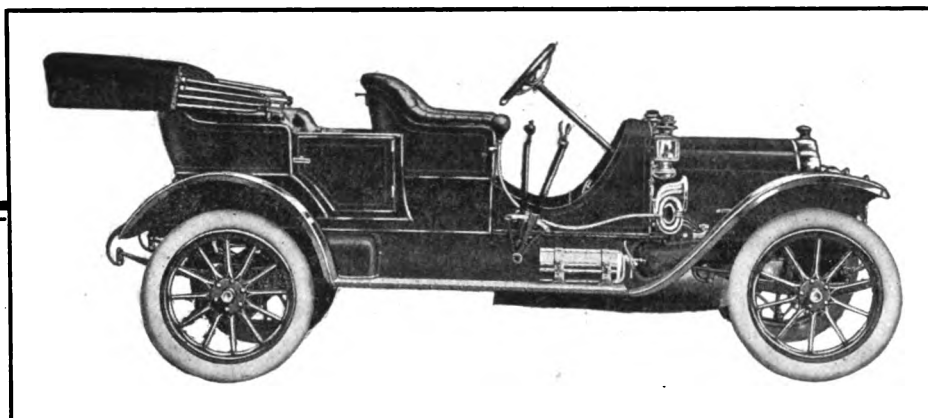
Following the action instituted by J. J. O'Toole, one of the partners, receivers have been appointed for the Southern Automobile Sales Co., Washington, D. C., and the business will be wound up. O'Toole and his partners, W. B. Murray and B. F. Anderson, disagreed and O'Toole carried their quarrel to court.

Although A. Zubiria is president of the International Motor Sales Co., an Arizona corporation doing business in San Antonio, Tex., he alleges that the vice-president, W. F. Milner, is running things to suit himself. Accordingly he has applied for a receiver to wind up the business which he charges is being run at a loss.

The garage of the Fairchild Automobile Co. at St. Charles and Girod streets, New Orleans, La., which just has been completed is claimed to be the most magnificent structure of the sort in the South. It is two stories high, 120 x 150 feet, of brick and concrete construction. It will house Winton, Peerless and Rauch & Lang cars, for which the Fairchild company is agent. The structure measures 36 x 40 feet.

Oliver Twist probably does not want any more of the garage business—not Dickens's Oliver but the one who owned and operated the American Automobile Garage on South Clinton avenue, Trenton, N. J. The Trenton Twist has filed a voluntary petition in bankruptcy which gives his liabilities as \$4,193.68 and his assets as \$2,374.25. Before venturing into the automobile trade, Twist was a successful druggist.

George F. Lombard and Arthur F. Herbert, who comprise the Haverhill Motor Car Co., Haverhill, Mass., have fallen apart and Lombard has gone to court to settle their troubles. He alleges that although anxious to dissolve the partnership, as terms could not be agreed on, Herbert precipitated matters by seizing a Johnson car owned by the firm and by threatening to seize another. Accordingly Lombard has applied for a receiver and for an injunction restraining Herbert. The court granted a preliminary injunction and will take testimony next month.



## If You Could Go Through Our Factory

**I**F you could go through our factory to see just how carefully each part of our cars is built there would be no question as to the ones you would buy. Nearly everyone has something of an idea how carefully the work must be done on an automobile, but when one is actually in the presence of the countless operations—the refinement of processes, even a layman knows it means “well built.”

If we knew a better way—if we thought it possible to find a better way to build our cars we would immediately seek it. It is our ambition to build the most reliable and durable cars in the market—we have left no stone unturned to accomplish the result, and the kind and quality of service shown by the hundreds of cars in operation, are the sure proofs that we are right.

### Answering Your Questions on White Gasoline Cars

A motor of twenty to thirty h. p. The four cylinders cast *en bloc* are imported from France.

The bore is  $3\frac{3}{4}$ -inch, with  $5\frac{1}{8}$ -inch stroke, giving the utmost pulling power at low speed on the high gear.

Four forward speed transmission of the selective type with direct drive on third. This type of transmission permits the speed of the motor to always remain in the range of its greatest efficiency, no matter how fast or slow the car moves.

The cooling is by gear-driven pump and the costly “Honeycomb” radiators.

There are two general models, G-A and G-B, using identical engines. The model G-A has 110-inch wheel base, ignition by Bosch Magneto—priced with full equipment, excepting top, at \$2,000. With torpedo body at \$2,250.

Model G-B has 120-inch wheel base, ignition Bosch Magneto and batteries. Has the same equipment as model G-A plus foot-rail and tire-irons—priced at \$2,500. Limousine \$3,600. Landaulet \$3,800.

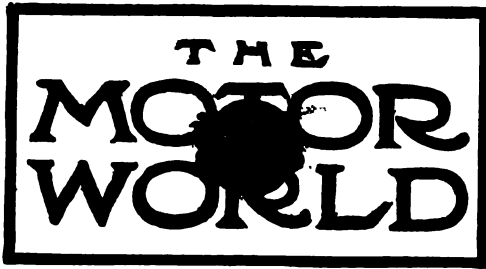
We make both steam and gasoline propelled cars.

Catalogues and other literature of either gladly sent upon request.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO



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NEW YORK, JULY 21, 1910.

#### The Most-for-the-Money Movement.

Automobile buyers who are inclined to seek the most for their money and who measure quantity in that sense in terms of the number of accessories and other equipment features included in the original purchase price of the machine, are destined to have an increasing range of choice as time goes on. At least that is the supposition which is borne out by a consideration of such new models as already have appeared together with such inklings as may be obtainable as to the probabilities of those as yet unannounced. There is every reason to believe that the example set last year by a number of manufacturers in listing their products fitted out ready for the road will be followed by a considerable number of others in the near future.

This prospect is an interesting and, in some respects, a valuable one, for the prospective purchaser, particularly if he be of the eager though timid class which is

about to encounter its first experience in the realm of the automobile. For such it provides a stout bulwark against the wiles of the unscrupulous dealer who would induce the inexperienced to load up with needless and unsuitable paraphernalia. It ensures that the novice's car shall be equipped with only such appliances as may be considered really essential, with the possible exception of the speedometer, and that the quality of the fittings will be of a suitable nature.

From the manufacturers' point of view the prospect also is interesting because of its advertising value and also by reason of the fact that it affords means of curtailing the practice in which some agents indulge so extensively, of "giving away" accessories with the car and thereby accomplishing a virtual cutting of prices without actually affording the manufacturer tangible means for redress. In this connection it may be observed that the manufacturer who adds to the free equipment included with the car stands in the same advantageous light of generosity as does his agent under similar circumstances. Irrespective of the nominal value of the extra equipment; the actual cost outlaid is represented by quantity price, which, in the case of the maker, is far enough below list to render the tax upon his generosity far from severe.

The increasing movement for liberal equipments may not be viewed with unmixed approval by the accessory manufacturers, since they may be expected to prefer the advantages of the long market price in disposing of their wares. At the same time equipment business is not without its advantages in providing a steady income. Besides, there is left undisturbed that huge market which arises from the refitting of used cars and the ever-ready requirements of the active motorist for replacements.

#### Where Cars are Made or Marred.

With the return of the season for announcements of new products and the activity in the factories which it evidences, it may be well to throw in a word of caution as to the need of care in the assembling process. More than once in the past it has been pointed out that many a good car has been spoiled by careless or hasty treatment on the assembling floor, and recent experience with more than one machine has shown that, in some quarters at least, the caution has not been heeded.

It is a threadbare fallacy which argues

that good engineering applied to the design of a product and skilful planning outlaid in routing materials in process of manufacture must ensure a perfect machine. Industrial systems reduce the effect of the human equation by cutting it out of nearly all elementary processes, but they cannot eliminate it from the final and critical step in which the parts are brought together and adjusted.

For example, a lot of chassis may be put through hurriedly without proper care being taken to see that the bevel driving gears are meshed correctly. The result will be that a large proportion of that particular lot of machines sooner or later will require new sets of driving gears. Or, through some slight error in the setting of a drilling templet, one lot of frames may have to be "drifted" in order to get motors and transmissions into place. The chances are pretty strong that not a few of those cars will suffer from warped frames or broken crank case or gear box arms. It is useless to enumerate the ways in which whole groups of cars may be rendered unsatisfactory through hasty work on the floor; it is more important to guard against the difficulty which gives rise to such troubles.

Back of the product, back of the system which produces it, is an organization which has the double responsibility of production and marketing. This double responsibility frequently gives rise to a division of interests so great as practically to clog the entire administrative and subordinate mechanism. The factory forces regard the selling end as both pampered and ineffective. From the field the factory is looked upon merely as "the organization which produces our cars."

It is the troublesome and at times seemingly impossible task of the central organization to preserve due harmony between these equally important divisions of its forces and to safeguard the men who produce the cars against the harrying of the men who produce the customers. For that is where the difficulty oftenest lies.

Wise and thriving manufacturers provide double inspection systems, isolate manufacturing and sales departments and themselves oversee the work of both with a view to excluding the effects of haste and conflict. In the last analysis, the assembling floor becomes the buffer territory into which are carried a large proportion of the organization's disagreements. Therefore it



is entitled to double protection as well as to the closest scrutiny. For it is there that the product is either finished perfect or just "thrown together;" there it is made or marred.

### Why is the Muffler Cutout?

With the multiplication of ordinances against the use of glaring headlights within city limits and the omission of smoke and the more rigid enforcement of anti-speeding regulations, it is not unreasonable to suppose that the day of the muffler cutout is drawing toward its close. Indeed, many localities already have their measures forbidding its use, and while generally dormant, it is likely that they may be brought into active use at almost any time. Such being the case it is worth while to inquire as to the real value of the cutout and whether it has not already outlived its usefulness in most instances.

Originally applied in the days when every ounce of power the motor could produce was likely to be called into requisition, the additional power which it lends the modern motor for propulsive purposes no longer is to be regarded as of very great importance. As a matter of fact, the average muffler detracts not more than two or three per cent. from the power of the engine, and that amount, of course, measures the additional increment which the use of the cutout places at the disposal of the operator. For a manufacturer to urge that the cutout is an absolute necessity for the car is to acknowledge that the muffler absorbs an unusual amount of power, or else that the car is under-powered; neither argument is likely to be a welcome one to the maker whose reputation is at all at stake.

Aside from the power consideration, the only real use of the cutout is for signaling purposes. In that way it has come to be of considerable service to the motorist, and in many sections of the country it is recognized as a legitimate form of alarm. At the same time it is questionable whether it is to be preferred to the more stereotyped forms of signal device, particularly for the reason that it is not employed for signaling purposes alone. Indeed, the use of the exhaust blast as a warning signal savors rather too much of license in the matter of speed to be altogether encouraged.

There no longer is any reason why the relation of engine power to car weight

## COMING EVENTS

July 18-23, Milwaukee, Wis.—Wisconsin Automobile Association's first annual endurance test for "Milwaukee Sentinel" trophy.

July 22-23, Columbus, O.—Automobile meet; W. H. Wellman, promoter.

July 22-27, St. Paul, Minn.—Minnesota State Automobile Association's second annual reliability run for the "Dispatch" trophy; 660 miles.

July 23, Brighton Beach, N. Y.—Motor Racing Association's race meet on mile dirt track.

July 23, Atlanta, Ga.—Atlanta Automobile Association's race meet on Speedway.

July 24, New Braunfels, Tex.—San Antonio Automobile Club's hill climb.

July 25, Chillicothe, O.—Order of Owls track meet.

July 25-27, Cleveland, O.—Cleveland Automobile Club's reliability run.

July 27-28, Pittsburg, Pa.—Automobile races at Brunot's Island.

July 28-29, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Club third annual interclub reliability team match.

July 30, Long Island Motor Parkway, N. Y.—Motor Parkway Inaugural Sweepstakes.

July 30, Salt Lake City, Utah—Salt Lake "Telegram's" third annual hill climb.

July 30, Wildwood, N. J.—North Wildwood Automobile Club's race meet on Wildwood Speedway.

August 1, Minneapolis, Minn.—Minneapolis Automobile Club's reliability run.

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 4, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 9-10, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 15—Start of second annual

Munsey Historical Tour from Philadelphia, and terminating at Washington, D. C.; 1,700 miles.

August 19-20, Brighton Beach, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race meet.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

August 31-September 8, Kansas City, Mo.—Automobile Club of Kansas City's reliability contest.

September 2, 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway

September 3, Wildwood, N. J.—North Wildwood Automobile Club's reliability run to Philadelphia.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 15, 16 and 17, Lowell, Mass.—Lowell Automobile Club's road race.

September 17, Norristown, Pa.—Norristown Automobile Club's race meet.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint racemeet at Fair Grounds track.

September 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

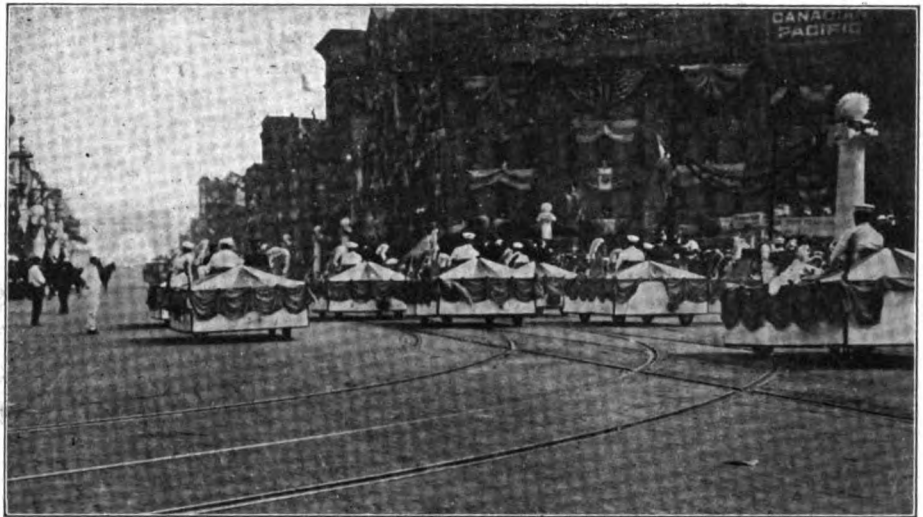
should not be so proportioned as to afford ample reserve without the open muffler. In other respects manufacturers are striving in every way possible to reduce the noise made by the machine. Muffler design itself is improving, and is likely to im-

prove in the near future in common with other betterments in engine construction. Just why it should be considered necessary to continue to furnish the cutout pedal with the average stock machine really is difficult to explain.

## DETROIT'S PRODIGIOUS PAGEANT

More than 1,500 Motor Cars Parade for the Elks—Some Striking Decorations—The Prize Winners.

If any of the 20,000 Elks and their friends who partook of Detroit hospitality in innumerable forms last week on the occasion of the annual convention of the order in the Straits City are not thoroughly convinced of the all around supremacy of Detroit as an automobile city, they must indeed be a skeptical sort. For not only as a producer of automobiles does Detroit lead every city in the world, but also on Friday, 15th inst., it for the second time staged the largest parade of motor cars



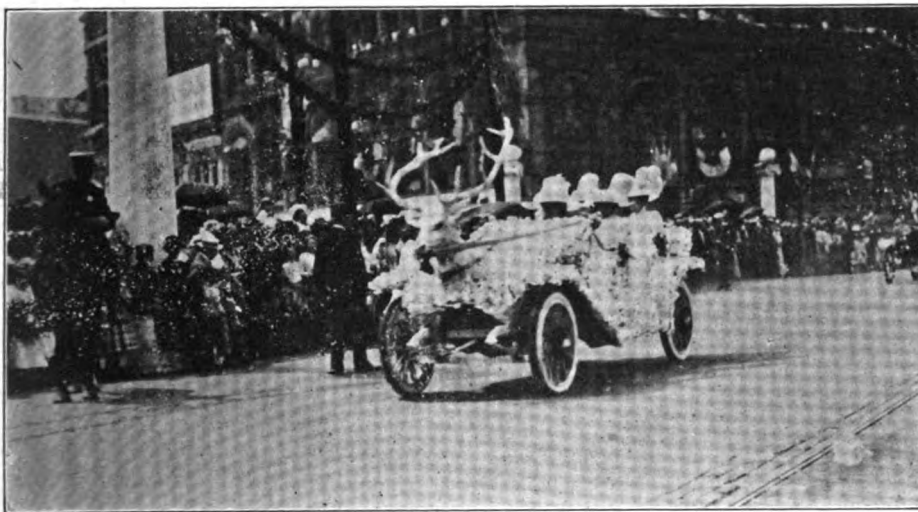
THE FLOATS THAT CARRIED THE POLICE ESCORT



MORGAN & WRIGHT'S STRIKING DISPLAY



THE HISTORICAL FLOAT THAT WON CHIEF AWARD



MRS. ALDRICH'S CREATION THAT WAS AWARDED WOMAN'S PRIZE

ever held; there were more than 1,500 cars in line.

The pageant was over 11 miles in length

and was witnessed by more than 50,000 people. Not only did it surpass in size Detroit's initial effort in pageantry at the send-

off of the Glidden Tour last year, when over 1,200 machines passed in review, but the Elks' tournament eclipsed anything of the kind ever held elsewhere, although there are plenty of cities capable of mustering more cars. It must have been local pride in the city's chief industry that was responsible for the immense fleet of cars in fancy dress and plain attire which rolled through the streets of their native town.

Those who either were unfamiliar or else had forgotten what the automobiles of a decade ago looked like had their memories refreshed, for there were cars of all sorts and sizes from the humble curved-dash run-about, the first born of Detroit motordom, to the handsome and glistening 1911 models, many of which were uncovered to public gaze for the first time. The parade consisted of 42 divisions, all of which were well filled.

Without doubt the most striking creation was the Cadillac display reproducing a painting in the Detroit city hall depict-

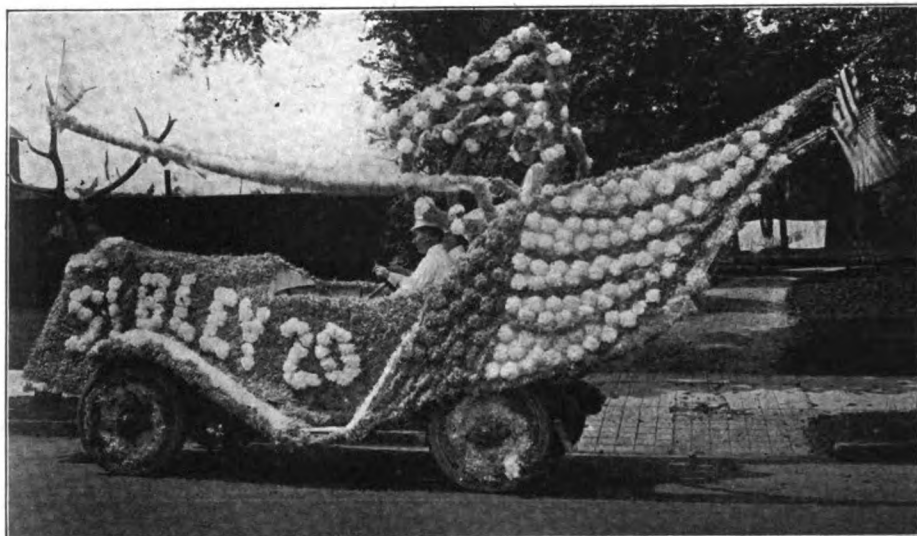
ing Louis XIV presenting a commission to Chevalier Cadillac to found a colony at Detroit. The occupants of the float were dressed in the costume of the period and went through the pantomime in creditable style. This float easily won for the Cadillac company the chief award, the grand sweepstake prize, a gold-lined cup 30 inches high. First honors for cars driven

dreds of thousands laugh wherever they have appeared, were more amusing than ever, if possible, and easily took the laurels in the comic division, a Tiffany electric lamp. The evolutions of these inflated rubber figures were a distinct cause for wonderment to many Detroiters who never before had seen them. No other awards were made in this class, the judges con-

float was a huge Nobby Tread tire with a youngster swinging in the enclosure. This impressed the judges sufficiently to receive third prize. Several cars received honorable mention for the attractiveness of their decorations, among them being the Brush and Johnson cars.

Forming on the boulevard the pageant, headed by 16 carloads of police, four abreast, moved down Woodward avenue, looping the city hall where it was reviewed by the city dignitaries and grand lodge officers. It required 50 minutes to pass the reviewing stand. Many of the local makers were strongly represented, some divisions being composed almost or entirely of one make of car. Some particularly large turnouts were made by Oakland, Buick, Hupmobile, Brush, Maxwell, E-M-F, Hudson and Everitt.

As a sort of finale to the entertainment provided for the Elks during their stay in Detroit, the Buick racing team gave an impromptu "racemeet" at Grosse Point track on Saturday afternoon, 16th inst. No admission was charged and about 2,000 people witnessed the "races," which chiefly were exhibitions and friendly brushes between the leading drivers on the team. It strictly was a Buick function throughout, no other cars or drivers competing. Bur-

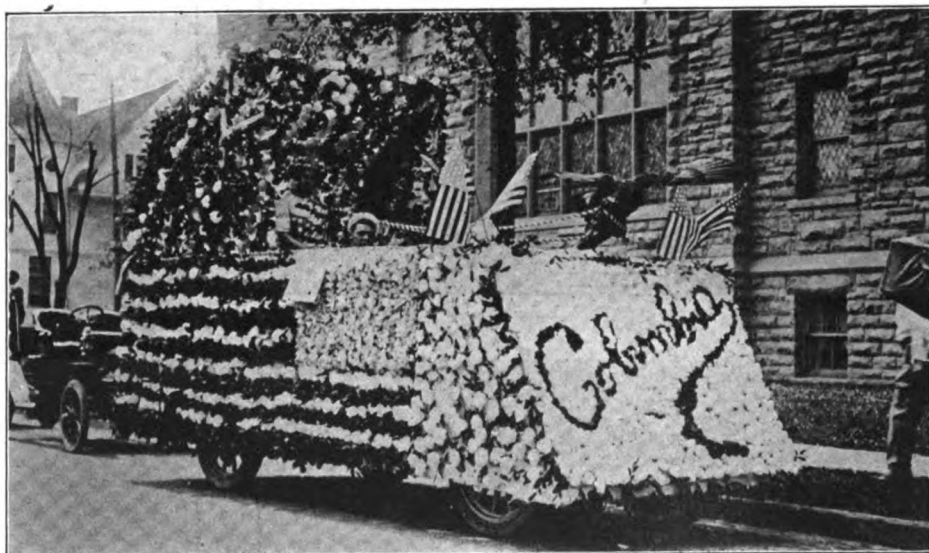


THE SIBLEY CAR THAT CARRIED A PHONOGRAPH

by women were captured by Mrs. R. D. Aldrich, driving a Chalmers 30. Her car was decorated with carnations and violets, while on the radiator was an immense Elk's head with ribbons leading from the antlers to the dash. The four women occupants of the car also were attired in white and purple. The award was a silver iced tea set.

The adoption of an Elk symbol, a clock with the hands pointing to the hour of 11 o'clock, and miniature elk heads over the lamps, won for Mrs. J. G. Bollinger's Warren-Detroit first prize in the gasoline pleasure class. The car was decorated with white carnations set off with purple, but it was the radiator adornment which caught the fancy of the judges and influenced their decision. No other car carried the mystical timepiece with the hands denoting the eleventh hour. Second prize in this class was taken by W. B. Wreford's Columbia, and a most impressive and beautiful display it was. The body of the float was worked out in colored flowers, the sides representing American flags, while the slanting prow in front carried a field of white in which was worked the familiar Columbia scroll. Surmounting the float was a huge throne of red, white and blue, occupied by a young woman impersonating Columbia, the throne being surmounted by a canopy of the same colors. Third prize in this division went to the Sibley Motor Car Co.'s entry, which was dressed in purple and white and carried an Elk head in front.

The inimitable Michelin Bibendum twins, whose hilarious antics have made hun-



THE LARGE AND IMPRESSIVE COLUMBIA FLOAT

sidering that no other display was worthy of such recognition. The electric class also came in for censure, the showing being so poor that no prizes whatever were awarded.

In the commercial division, a Welch-Detroit gained the approbation of the judges for first prize, a chest of silver. It bore a float depicting a scene from the battle of Bloody Run, an engagement between the Indians and British in Colonial times. The A. A. Grak Co., which took second prize in this class, drew on the forest for their display, and showed a family of deer. The central figure on the Morgan & Wright

man drove his big special a mile in 56½ seconds, which was claimed as a new record for the track.

#### Roosevelt at Last Buys a Car.

Dissipating a number of conflicting reports, the New York registration list of the current week proves that former President Theodore Roosevelt himself actually and at last is the owner of an automobile. It is a Haynes, registered in his own name. Its registration number is 108,248, which of course will be changed on August 1st, when the new law goes into effect in this State.

**WHEELING SEES OLDFIELD WHIRL**

**And of Course More "Dirt Track Records" are Shattered—Local Drivers Furnish an Exciting Collision.**

Rather than disappoint the crowd of 5,000 people who, through advance stories of their prowess had been led to expect great things of them and, accordingly, had contributed collectively a round sum to see their little repertoire, the Oldfield-Kirscher combination broke at least one "world's record for a mile on a circular half mile track," in addition to a few local marks at the Ohio Valley Automobile Club's matinee at the Fair Grounds half mile track, Wheeling, W. Va., on Saturday, 16th inst. Of course the visitors of national fame were practically the whole show.

It was Kirscher, the Flying Dutchman, who amazed the Wheelingites by hurling his Darracq twice around the half mile oval in 1:05½, which duly was announced as a new "world's record for half mile tracks," superseding Oldfield's figures of 1:06¼, made at Findley, O. Then the hero himself took several whacks at the newly created figures, but the best he could do was 1:06¼. He claimed that the Benz was too long to take the sharp turns closely. In one of his trials Oldfield added an extra dash of ginger by throwing a tire and making a fancy skid. The three miles handicap pursuit between Barney and Kirscher was well played, Oldfield winning by two lengths in 3:30. He was allowed 30 seconds by Kirscher, and permitted the latter to crawl up slowly until close on his rear wheels, when he beat off every d-e-sperate attempt of the Dutchman to go by.

Roy Eshenbaugh, Chadwick, and Dan Nee, Buick, had an interesting three miles match, the former winning easily in 3:51½. Nee was three lengths behind. The only mishap of the day occurred in a three miles handicap for local drivers, which had three starters, Ranson, Stevens-Duryea; Austin, Buick, and Eshenbaugh, Chadwick. The latter was on scratch, giving Austin 6 seconds and Ranson 50 seconds. Eshenbaugh caught the leaders in the third mile, and in attempting to pass Rankin on the inside Eshenbaugh swerved into the former. The Stevens was badly smashed in the collision, but the Chadwick came off lightly. The Buick won in 3:59½, the Chadwick taking second. The summaries:

Time trials—Kirscher, Darracq, 1:05½; Oldfield, Benz, 1:06¼; Austin, Buick, 1:18½; Eshenbaugh, Chadwick, 1:20½; Ranson, Stevens-Duryea, 1:41.

Three miles match—Won by Eshenbaugh, Chadwick; second, Nee, Buick. Time, 3:54½.

Three miles pursuit handicap—Won by

Oldfield, Knox (0:30); second, Kirscher, Darracq (scratch). Time, 3:30.

Three miles handicap, local drivers—Won by Austin, Buick (0:50); second, Eshenbaugh, Chadwick (scratch). Time, 3:59½.

**24 Badgers in 800 Miles Contest.**

With a representative field of 24 contesting cars, the largest and most pretentious motoring function ever staged in Wisconsin got under way at 7 a. m. on Monday morning, 18th inst., when the Wisconsin State Automobile Association's six day reliability contest for the Milwaukee Sentinel trophy officially was inaugurated. It will end Saturday evening next.

The starters were the following: Edward Collier, Rambler; Arthur Gardiner, Rambler; E. W. Arbogast, Badger; Carl Kobersteen, Badger; E. P. Wilkins, Mitchell; August A. Jonas, Cadillac; Wendell L. McEldowney, Jackson; William Fisher, Buick; F. Hokanson, Buick; N. C. Rice, Kisselkar; W. R. Rice, Kisselkar; Arthur Ove, Kisselkar; Lewis Strang, Pierce-Racine; J. W. Eviston, Johnson; Ross Neuwood, Ohio; F. L. Buckbee, Pope-Hartford; George L. Thomas, Reo; Gordon Bird Corbin; W. H. Diener, Ford; M. E. Springer, Franklin; John Heber, Overland; Chester Cheney, Staver; G. D. Waite, Petrel. and George W. Browne, Marion. The only entrant who did not start was R. D. Rockstead, Warren-Detroit.

The route, which is 808 miles in length, embraces several of the larger cities of the state, and the night stops are as follows: Monday, Madison; Tuesday, La Crosse; Wednesday, Eau Claire; Thursday, Merrill; Friday, Appleton; Saturday, finish at Milwaukee.

**American Cars Score in Canada.**

Exciting finishes marked the annual race meet of the Winnipeg (Man.) Automobile Club, which was held on Wednesday, 13th, in connection with the opening of the 1910 Winnipeg Industrial Fair. It was an amateur meet, and although the track was very dusty some good sport resulted, three events being run. Walker, in a Russell, a Canadian car with Knight sliding valves, was one of the competitors, but he was beaten by Howe, in a Mason-Maytag, an Iowa product. The summaries:

Five miles, stock cars 190 cubic inches—Won by McQuarry, Croxton-Keeton; second, Howe, Mason-Maytag. Time, 7:30.

Five miles, stock cars 221-260 cubic inches—First heat won by Walker, Russell; second, McQuarry, Croxton-Keeton; third, Brown, Kisselkar. Time, 7:31½. Second seat won by Howe, Mason-Maytag; second, Brown, Reo. Time, 7:20. Final won by Howe, Mason-Maytag; second, Walker, Russell. Time, 7:13.

Two miles, to decide third positions in preceding event—Won by Brown, Reo; second, McQuarry, Croxton-Keeton.

**OVERHAULING CONTEST RULES**

**Manufacturers' Committee Meets for the Purpose at Niagara Falls—No Radical Changes are Likely.**

An all-day session of the active rules committee of the Manufacturers' Contest Association was held at the International Hotel, Niagara Falls, Thursday last, 16th inst. Chairman Howard E. Coffin presided. The other members of the committee in attendance were: Geo. A. Weidely, Premier Motor Mfg. Co.; Alanson P. Brush, Buick Motor Co.; Geo. H. Strout, as proxy for Edgar Apperson, Apperson Bros. Automobile Co., and Russell A. Field, assistant secretary-treasurer. By invitation there were present: H. O. Smith, vice-president of the Manufacturers' Contest Association; S. M. Butler, chairman of the contest board of the American Automobile Association, and A. L. McMurtry, chairman of the technical committee of the American Automobile Association.

Suggestions for changes in the contest rules to govern for 1911 submitted by members, non-members and registered drivers were given individual attention. Where in the judgment of the committee the suggested change was desirable, recommendations were made which will be referred for action to the general rules committee of 25. All of those present were heard regarding the rules to be adopted for next year, with the result that practically the entire work done will be presented to the general rules committee for consideration before the meeting of this body, which will occur some time in September, close to the dates to be set for the board meetings of the National Association of Automobile Manufacturers and the Association of Licensed Automobile Manufacturers. After being thoroughly discussed and acted upon at the September gathering, the proposed changes will again be referred back to the active rules committee, and by them finally submitted to the contest board of the American Automobile Association.

Practically all of the suggestions made were on matters of detail and making clearer portions of the rules which in their present state may be open to more than one interpretation.

**Quakers Program Six Hours' Race.**

Expanding its original card of short events quite appreciably, the Quaker City Motor Club of Philadelphia has announced a six hours' race as the topline for its track meet at Point Breeze on August 6th. The quarter-way-round-the-clock jaunt will be open to all stock cars and will carry emoluments aggregating \$2,000, divided on a basis of \$1,000, \$750 and \$250 respectively.



## DAYTON HAS A THREE DAYS MEET

**Hughes, Endicott and Woverries Divide the Honors—Close Finishes and Minor Mishaps Mark the Events.**

With the assistance of a few imported factory drivers to add zest to the doings of the local talent, the Dayton (O.) Automobile Club managed to give the good sized crowds which attended its annual meet on the fair grounds track on the 15th and 18th inst. some fairly good sport for their money.

While no records were broken, some close and exciting brushes occurred, the honors being about equally divided between Hugh Hughes, Bill Endicott and Otto Woverries, the latter a local crack. There also were a few mishaps to lend spice to the function but the casualties were confined entirely to the cars concerned. The fields were small, but this was compensated for by the thrills which were uncorked in close succession. Opening on Friday, the second day's program, which was scheduled for Saturday, was postponed to Monday on account of rain.

On Friday the spoils were quite evenly distributed, no one taking more than one event, the feature race, a five miles match, being captured by Hughes. Woverries accounted for the five miles open, and Michaels, Hupmobile, had a walkover in the less than \$900 class. Monday's racing was the best of the meet, and with Hughes put out of the running by an accident, Endicott and Woverries practically cleaned up the card. Endicott pilfered the star event, a free-for-all, while Woverries trimmed the former in the 10 miles open.

### Friday, 15th—First Day.

Consisting largely of exhibitions and minor events, the opening day's card on Friday afternoon, 15th inst., served to whet the crowd's appetite for what was to have occurred the next day. Hughes, the ex-Vanderbilt pilot, was up in a Parry, and with Bill Endicott in a Cole put up the best sport of the day in a five miles event. It was nip and tuck all the way, Hughes beating his rival to the tape by a foot. Time, 7:34½. In the exhibition series, Hughes spun a mile in 1:19, and Endicott looped two circuits in 2:45. Otto Woverries, Buick, had a hollow victory in his five miles match with Ralph Devoe, Overland, the latter being retired with engine trouble. Woverries's time was 6:51.

The best time of the day was made by Hughes in an attempt to lower the track record of 1:14¾ by Oldfield, and although he failed to touch the barnstormer's figures he was clocked in 1:16. After having the two miles match for cars under \$900 practically won, Earl Devoe, a 12-year-old youngster, who drove a Ford, was robbed

of a victory in the last lap by his engine quitting, and H. P. Michaels, Hupmobile, carried off the honors. Time, 3:10. The summaries:

Two miles match for cars not over \$900—Won by H. P. Michaels, Hupmobile. Time, 3:27. Earl Devoe, Ford, also started.

Two miles novelty—Won by Shartel, Buick; second, Hughes, Stoddard-Dayton. Time, 3:45.

Five miles match—Won by Hughes, Parry; second, Endicott, Cole. Time, 7:34½.

Five miles match—Won by Otto Woverries, Buick. Time, 6:51. Ralph Devoe, Overland, did not finish.

Time trials, 1 mile—Hughes, Parry, 1:16; Woverries, Buick, 1:19; 2 miles—Endicott, Cole, 2:45.

### Monday, 18th—Second Day.

Heavy rains on the previous night having rendered the track unfit for racing on Saturday, the events scheduled for the windup of the meeting were postponed to Monday, when Otto Woverries, a local pilot, was the star of the occasion. He captured three firsts and one second. His victories, however, all were well earned, Bill Endicott, in the Cole, pressing the local man hard for the honors. Endicott also distinguished himself by making away with the free-for-all in fine style after winning his class.

Hughes and his Parry were the central figures in a spectacular smash in the 231-300 division, five miles to go. On one of the turns a front wheel flew off and crashed through the fence and brought up in the stables, while Hughes managed to bring the car to a stop at the edge of the track and right side up. The race was stopped at 3½ miles and awarded to Woverries who was leading. Devoe, Overland, took second. Time, 4:58.

Another flurry of excitement was caused when Woverries and Devoe locked wheels in a five miles race, but both cars separated with only slight damage. The free-for-all was the best race of the day, Gilchrist, Stoddard-Dayton, and Endicott, Cole, mixing it hotly all the way, but the latter's handicap proved just a bit too great to be overcome, and he won by a close margin. Time, 10:25. About 1,000 people were present.

#### The summaries:

Five miles, stock chassis 230 cubic inches and under—Won by Woverries, Buick; second, Endicott, Cole; third, Edmunds, Cole. Time, 6:43.

Five miles, stock chassis 231-300 cubic inches—Won by Woverries, Buick; second, Devoe, Overland. Time, 4:58. Stopped at 3½ miles on account of accident.

Seven and one-half miles free-for-all—Won by Endicott, Cole; second, Gilchrist, Stoddard-Dayton; third, Edmunds, Cole. Time, 10:25.

Three miles free-for-all—Won by Fritsch,

Buick; second, Gilchrist, Stoddard-Dayton. Time, 4:37.

Five and one-half miles, stock chassis 161-230 cubic inches—Won by Endicott, Cole; second, Woverries, Buick; third, Edmunds, Cole. Time, 6:55.

Ten miles free-for-all—Won by Woverries, Buick; second, Endicott, Cole; third, Fritsch, Buick. Time, 13:30¾.

### Trophy Awarded After Year's Delay.

Further exemplifying the reward which finally comes of unflagging perseverance, the Premier Motor Mfg. Co., of Indianapolis, Ind., after a spirited struggle extending over a year and a half, at last has secured the fruits of its victory in the Quaker City Motor Club of Philadelphia's mid-winter endurance run on January 1-2, 1909, in the shape of the McDonald & Campbell trophy, which was won permanently by Ray McNamara with a Premier. As the third and final struggle for the trophy, the contest was held over fearful snowbound roads, and the triumph of the Premier, although well earned, was vigorously opposed at every step on technical grounds by the Quaker City club in the appeal to the contest board of the American Automobile Association, which decided in favor of the winner. The cup disappeared but was finally located when the A. A. A. brought pressure to bear.

### Morgan's Derby Blows Off Unnoticed.

Something or other knocked Morgan's Long Island Derby into a cocked hat, which is to say that the Derby was not run on either Friday or Saturday last, in conjunction with the other road races which Mister Morgan had scheduled for those days. He has them sanctioned under his once pet name, Motor Contest Association, and it was expected that they would cause lots of automobile money to circulate in Riverhead, L. I., but the biting on Morgan's hook has not been very good of late and the Derby and all the rest fell through and never were missed. Their quiet abandonment did not even excite mention in the daily press, so completely had they been forgotten.

### McIntyre Heads Sharon's New Club.

With a membership of nearly 200, the Mercer County Automobile Club has been organized at Sharon, Pa. The following officers were elected for the first year: President, William McIntyre; vice-president, Leon Robbins; secretary-treasurer, Guy Marshall; solicitor, H. W. Davis.

### Automobile Club to Buy Road Drags.

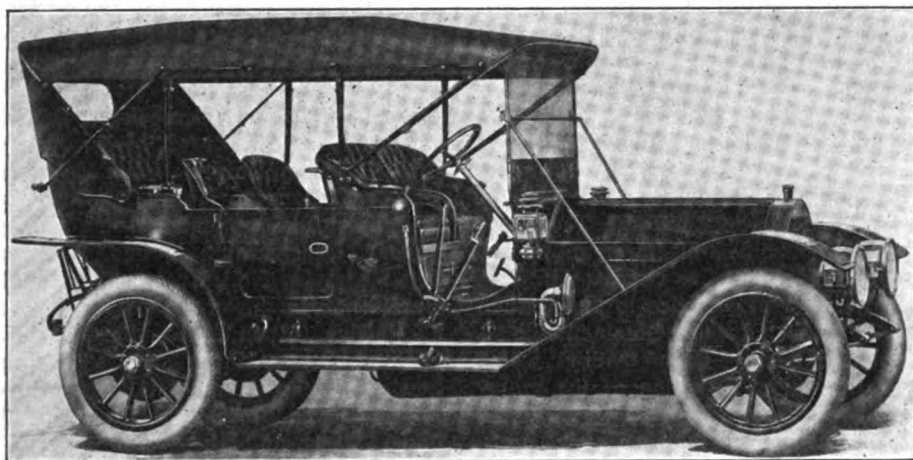
Buying King split-log drags and co-operating with the farmers in improving the highways is the object of the Beaver Dam Automobile Club, Beaver Dam, Wis., which recently was formed with twenty-five charter members. Permanent officers have not been elected as yet.



## REFINEMENT OF PIERCE-ARROW

Wherein the Famous Line has been Made  
Even Better—New Bodies and New  
Mechanical Features.

With its usual promptness the Pierce-Arrow Motor Car Co., Buffalo, N. Y., already is making deliveries on one of its new models, while specifications of the others are promised within a few weeks. The model which has been given precedence in getting out the new line is the 66 horsepower chassis, with its wide range of body equipments. This is a six cylinder machine, the Pierce-Arrow product being exclusively a six cylinder one, and in most points it corresponds very closely with its immediate predecessor. In the matter of



PIERCE-ARROW 66 HORSEPOWER CAR, FIRST OF NEW LINE

bodies adapted to be used with the large chassis, however, two significant additions have been made.

One is styled a "protected" touring car, and follows the initiative of the torpedo, but, instead of the radical lines of that type, embodies in rationalized form the principles of high sides and front doors, thus affording the occupants just the safeguard against dust and mud which its name implies. The other new body is the touring landau, which was presented first as a "show car" at the last Madison Square Garden exhibition, but which since has been converted into a regular type. This body is designed for luxurious touring purposes, and embodies in addition to special and unusually comprehensive interior appointments, carrying capacity for six trunks, luncheon kit, and a plentiful supply of tools.

The complete line of bodies for the 66 horsepower chassis includes the relatively new close-coupled body, which accommodates five passengers; the standard seven passenger touring car, seven passenger suburban, the four passenger small tonneau, three passenger runabout and, by way

of closed cars in addition to the touring landau, the seven passenger standard landau. There are thus virtually eight different styles of car built upon the single chassis foundation.

With regard to the changes in the construction of the chassis, perhaps the most important are to be found in the motor where idler pinions have been introduced between the cam shaft gears, thus reducing the size, and incidentally the peripheral speed of the two-to-one trains, and thereby reducing their noise-making properties. Another change is the placing of the secondary ignition wires in metallic protecting tubes, which, in addition to guarding them against mechanical injury serve to eliminate troubles due to induction such as have caused more or less difficulty with six cylinder motors in the past. Incidentally, the appearance of the motor is considerably improved.

In the selective change gear set an improvement has been made by adopting the telescoping pinion form of high speed clutch instead of the crab claw clutch which used to be employed. One particular advantage of this arrangement, of course, is the facility which it provides of securing the direct drive relation practically irrespective of the car speed. By the adoption of an improved method of encasing the universal joints in the propeller shaft improved lubrication is secured for those important members, while in all universal connections the pins will be secured hereafter by means of collars instead of taper pins, as in the past.

A more substantial support for the luggage rack and tool box at the rear of the frame has been secured by extending backward the gusset plates which reinforce the frame at that point. A slight change at the forward end of the chassis consists in the addition of an extra leaf to the semi-elliptical spring, which in addition to strengthening that member, brings the chassis practically up to the level.

By way of improving the facilities for operating the car a number of minor

changes have been made. Thus, a foot accelerator pedal has been adopted as an auxiliary to the hand throttle which is mounted over the steering wheel. The accelerator is independent of the throttle as far as movement is concerned, though it cannot reduce the engine speed below the point determined by the position of the hand lever. The gear shifting lever and arm have been strengthened and a wooden steering wheel with metal embedded in it is a new feature.

A radical and commendable feature is the adoption of a special priming pump, which is mounted on the dash, and which is arranged to distribute gasoline directly to the inlet manifold. This device is intended to facilitate starting, and is particularly useful during cold weather. As on previous models, a power-actuated tire inflating pump is mounted on the left side of the motor in front. On the new models, however, the pump used will be of increased capacity and of original design and construction.

Another noteworthy point is the clearing of the running boards. With present construction, the only attachment on the right side of the car is the spare tire carrier, while on the left the battery box is the only equipment, and this, being of cast aluminum, has been worked into the design of the car in such a way as to be entirely unobjectionable.

Pierce equipment always has been extensive. With the new models it has been made even more liberal than formerly. It now includes the cape top and glass front, power air pump, trunk rack, gas headlights, combination oil and electric dash and tail lamps, an electric rear lamp for illuminating the number, shock absorbers, Prest-O-Lite tank, horn and tools, gasoline gauge and primer, odometer, tire carriers, sprag and a full lock equipment protecting the hood, tool compartment, dash cabinets and the supply box in the rear which houses the gas tank.

### Keeping Clasps and Straps Secure.

A broken hood clasp never should be neglected, nor should a car, normally equipped with a bonnet strap, be permitted to run for any distance minus that fastening. Although the risk may seem to be slight, the peril which follows the jumping off of a loose bonnet is too great to be risked for the sake of saving a few minutes time or a small amount of expense.

### Taxicabs Defined as "Common Carriers."

Taximeter cabs are held to be "common carriers" under the Michigan state law, according to an opinion by Attorney General Bird, at Lansing, the state capital. Because of this ruling all taximeter cab companies in the state will have to make application to the State Railroad Commission for permission to increase or decrease their capitalization.

## ENGINEERS OUTLINE THEIR WORK

The Great Wealth of Subjects that Will be Discussed at Detroit—How Factories Will be Visited.

There certainly will be no lack of topics for discussion at the meeting of the Society of Automobile Engineers, which is to be held in Detroit, on Thursday, Friday and Saturday, 28th, 29th and 30th inst. In addition to the transaction of formal business and the consideration of no less than 16 set papers, something over 40 live subjects are brought to the attention of the engineers on the program, and it is the intention of the program committee to bring up as many of them as there is time to consider. Nor will that be all there is to do.

Friday morning will be given over to factory visits, each member electing to visit three of the following establishments, which will be inspected by detachments of the society: Aluminum Castings Co., Burroughs Adding Machine Co., Cadillac Motor Car Co., Chalmers Motor Co., Detroit Steel Products Co., E-M-F Co., Gear Grinding Machine Co., Packard Motor Car Co., Timken-Detroit Axle Co. Afterward the party will assemble at the offices of the Timken-Detroit Axle Co. for luncheon on a yacht and an afternoon boat-trip as guests of that company.

The society dinner will be held on Thursday evening at the Hotel Tuller, which will be the headquarters of the society during the meeting, while on Friday evening the ladies accompanying the party will be dined at Light House Inn.

The following subjects have been announced for the formal papers:

"The Specifications and Heat Treatment of Automobile Materials," by Henry Souther.

"The Test of a 20 Horsepower Franklin Air-Cooled Motor." Conclusion of paper by L. R. Evans and R. P. Lay, by Prof. R. C. Carpenter.

"Variation of Current Practice in Anti-Friction Bearings," by D. F. Graham.

"The Pyrometer—Its Development and Use," by W. H. Bristol.

"Testing the Hardness of Metals," by A. F. Shore and H. G. McComb.

"The Basis for Motor Car Taxation," by Charles Thaddeus Terry, legal advisor of the American Automobile Association.

"The Establishment of a Court of Patent Appeals," by E. J. Stoddard.

"How to Make Gears Quiet by Grinding," by Frederick A. Ward.

"Seamless Steel Tubes and the Necessity for Standardization in their Specifications," by H. S. White.

"Slide, Rotary and Piston Valves versus Poppet Valves for Gas Engine Service," by Eugene P. Batsell.

"Ill-Smelling and Smoky Exhausts," by F. D. Howe.

"Motor Trucks for Railroad Service," by T. V. Buckwalter.

"Test Data Upon Sheet Metal Frame Sections," by L. R. Smith.

"Nomenclature of Motor Car Parts," by F. E. Watts.

"Cork Insert Pulleys as Applied to Motor Vehicle Manufacturing Machinery," by Lawrence Whitcomb.

"Carrying Appliances for Tools, Tires, etc.," by H. H. Brown.

In addition to the regular papers, which are to be read at the various sessions in the order given, these topics have been listed for discussion as opportunity offers:

The Engineering Lessons to be Learned from the Motor Car Contest; Drive Shaft versus Rear Wheel Brakes; Three Point versus Four Point Suspension; The Responsibility of the Motor Car Engineer to his Company and to the Public; Wheel Alignments—Camber and Foregather; Hot Rolled Gears (teeth rolled in) for Transmission and Differential Purposes; Best Tooth Form for Quiet Gears, both Spur and Bevel; Valve Seat Angles; Driver's Seat on Left versus Driver's Seat on Right for Pleasure Car Purposes; Leaf Springs, Methods of Mounting and the Treatment of Springs by the Manufacturer and in the Hands of the Motor Car Owner; Magneto Efficiency; Current Practice in Lubrication and the Practical Results Obtained; Standardization Problems—those matters which deserve the united attention of the motor car engineers in an effort to simplify the purchasing department and deliveries problem; Proper Power and Speed for Gasoline Motors for Truck Purposes, and Proper Road Speeds for Vehicles of Different Capacities; Location of Motor for Commercial Vehicle Work—in Front under Bonnet or under Seat; Long Stroke versus Short Stroke Motor—Advantages and Disadvantages of Each; Driver's Seat on Left versus Driver's Seat on Right for Commercial Car Purposes; the Edison Battery in Practical Vehicle Service; Electric Vehicle Mileage; Fool-proofing the Commercial Car Mechanism and Its Control; Standardization Possibilities Within the Commercial Car Field; A Proper Nomenclature in the Distinction of Freight and Passenger Vehicles; Tire Mileage and Costs.

Single versus Dual versus En Bloc Cylinder Construction—the Advantages and Disadvantages of Each; Two versus Three versus Five Bearings Crank Shaft Construction; Die Cast versus Sand Blast Bearings; T-Head versus L-Head versus Valve in Head Cylinder Construction; Cast Iron Valves; Piston Ring Fitting and Piston Ring Friction; Proper Portioning of Cooling Systems; Foreign Matter in Commercial Gasoline Obtainable Upon the Market at the Present Time; Motor Noises and their Remedy; Brake Materials; Influence of Case Form and Bearing Style upon Gear

and Gear Box Noises; Six Cylinder versus Four Cylinder Motors of Equal Rating; Practical Experience with Fixed Ignition Timing; Single versus Multiple Ignition Points; the Gear Ratios of Three and Four Speed Transmissions; the Relation of Transmission and Rear Axle Noises; the Preparation of a Stock Car for Racing Work; Worm Drive; Motor Power Required to Drive a Motor Car on Various Road Surfaces at Various Speeds.

During the business sessions the society will consider means for increasing its scope, such as the establishment of a reference library of current technical literature and the publication of a digest of technical literature for members' use. There will be discussed also the reports of committees which have been appointed to investigate the subjects of tire efficiency and gear steels.

In its process of upbuilding and growth under the new management, the Society of Automobile Engineers has elected a score of new members. The list includes: Harold N. Anderson, Speedwell Motor Car Co.; Jerome J. Aull, Lunkenheimer Co.; Ferdinand H. Berger, Russel Motor Axle Co.; Erle K. Baker, Universal Rim Co.; Arthur M. Dean, Matheson Motor Car Co.; Walter A. Frederick, Continental Motor Mfg. Co.; Eugene Gruenewald, Moline Automobile Co.; Morris A. Hall, Automobile; Jonathan Haralson, Hutchison Laboratory; George F. Heising, Moon Motor Car Co.; C. C. Hinkley, Owen Motor Car Co.; Ralph R. Lewis, Carhartt Automobile Corp.; Emil A. Nelson, Hupp Motor Car Co.; Harold L. Pope, Matheson Motor Car Co.; C. T. Schaefer-Embree-McLean Carriage Co.; Charles L. Sheppy, Pierce-Arrow Motor Car Co.; Albert F. Shore, Shore Instrument and Mfg. Co.; John Squires, Thomas Motor Car Co.; Ralph A. Vail, H. H. Franklin Mfg. Co.; George S. Case, Lamson & Sessions Co.

### Pernambuco a Promising Market.

Despite the handicap of old and poorly paved streets, about 100 pleasure and commercial motor cars at present are in use in the city of Pernambuco, Brazil. This is considered especially remarkable in view of the fact that the first automobile was imported scarcely two years ago, and that on account of the poor quality of these first machines, and the second-grade stuff is used in manufacturing them, there are some drawbacks affecting their ready introduction. The popularity of the automobile is increasing, however, the demand being chiefly for medium-weight passenger and freight carrying machines. But one make of American car is represented locally, the bulk of the machines in use being of either French or English manufacture. Naturally, importers have to make allowances for the effects of the hot and humid climate on rubber, steel, leather and all polished surfaces.

## CHANGES IN THE CHALMERS LINE

**Alterations Represent Refinements and Preserve Established Characteristics—An Unusual Torpedo Body.**

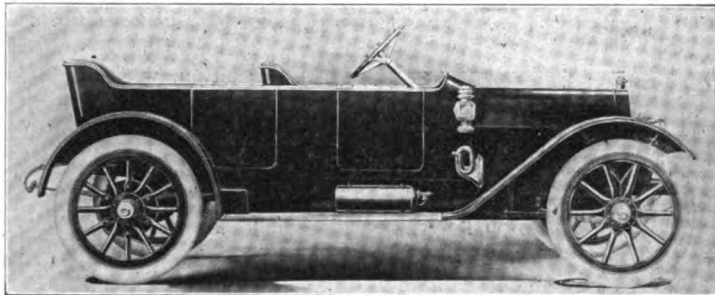
Adding its chief element of novelty, and no little distinction, the most striking change in the new Chalmers line is the torpedo body. In general essentials, however, the 1911 line will quite closely follow the specifications which have proved so successful in the past, the changes announced by the Chalmers Motor Co., De-

troit, being for the most part of a minor nature. The two chassis models, one of 40 and the other of 30 horsepower, remain much in the same form as in the current styles. Altered body designs, a general refinement of details and one or two changes which differentiate between the old

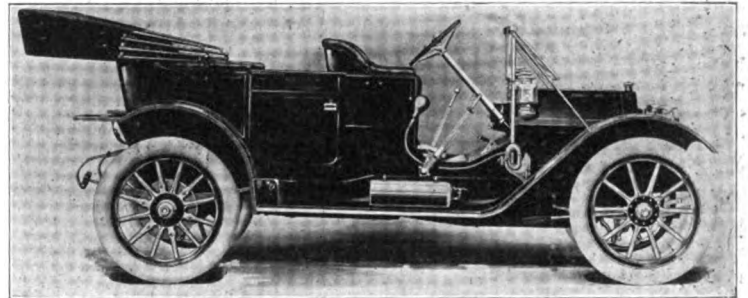
its equipment of convertible gas-electric lamps, shock absorbers, Prest-O-Lite tank and Firestone quick-detachable-demountable rims. The other "Forty" models are listed, as before, at \$2,750. The "Forty" chassis also is sold with standard touring and roadster body equipments.

The "Thirty" line is made up in touring, roadster, small tonneau, limousine, landaulet and inside driven coupe forms. The latter vehicle is a new and particularly striking example of a class which is coming to be recognized as extremely useful to certain classes of motorists, notably physicians and others whose business requires

standing cars have been known. New designs for the lamps, new mud guard designs, concealed supports for the running boards and wider doors also are new points, while on all models the battery boxes have been stripped from the running boards and placed beneath the tonneau floors, where they are out of the way and well protected from injury. Foster shock absorbers now are included in the equipment of all the "Forty" models



THE NEW CHALMERS "FORTY" TORPEDO

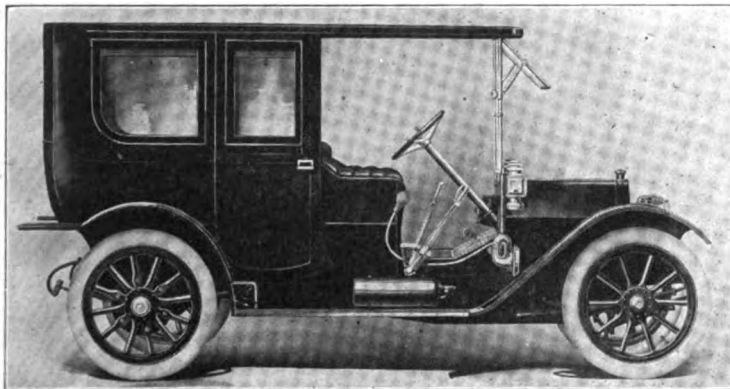


CHALMERS "30" STANDARD TOURING CAR

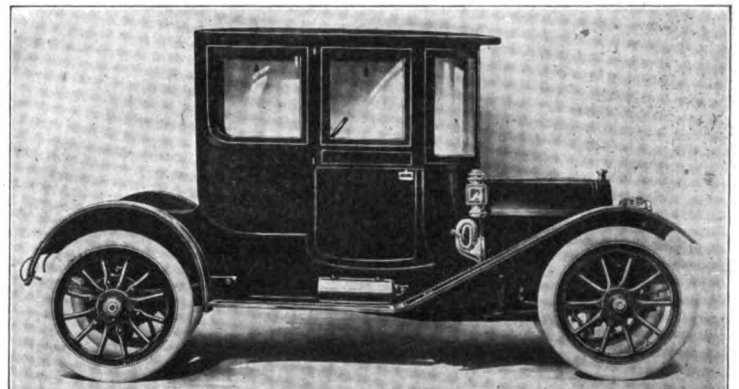
troit, being for the most part of a minor nature. The two chassis models, one of 40 and the other of 30 horsepower, remain much in the same form as in the current styles. Altered body designs, a general refinement of details and one or two changes which differentiate between the old

requent use of the car in all weathers, but who prefer to dispense with the services of a regular driver and handle the machine themselves. By the adoption of an extension front, room is made for a third seat facing to the rear, the car thus affording comfortable accommodations for

standpoint, however, it is noteworthy that the motor now is produced entirely at the Chalmers factory, instead of being built outside to Chalmers's specification. The valve springs are now entirely encased, thus silencing the noise of the lifters; the wiring systems on both motors have been



THE CHALMERS "30" LIMOUSINE



NEW CHALMERS INSIDE DRIVEN COUPE

and new models are the most significant points.

The new torpedo, which is fitted to the "Forty" chassis and replaces the small tonneau of last year, is unusual in a number of respects. In order to secure absolutely smooth sides, with no unnecessary protruberances to increase the windage or catch dust, all latches and handles have been placed inside the doors. Save for the gas tank, the running boards are entirely cleared of encumbrances, and the general straight line effect, which is the most striking element of torpedo design in its present tense, has been carried out to the last degree. The torpedo sells for \$3,000 with

three persons without being rendered in the least clumsy or "trappy" in appearance. The prices of the "30" touring and roadster types remain at \$1,500, while the small tonneau now sells for \$1,600 and the coupe and limousine and landaulet models for \$2,400 and \$3,000 respectively.

By way of affording identification for the newer models, the color scheme has been altered, grey stripings and cream running gear and striping in alternative combination with the standard shade of blue being the options. As a further mark of distinction all radiators will bear an azure blue bar across the top in token of the performance of the Chalmers "Bluebirds," as the

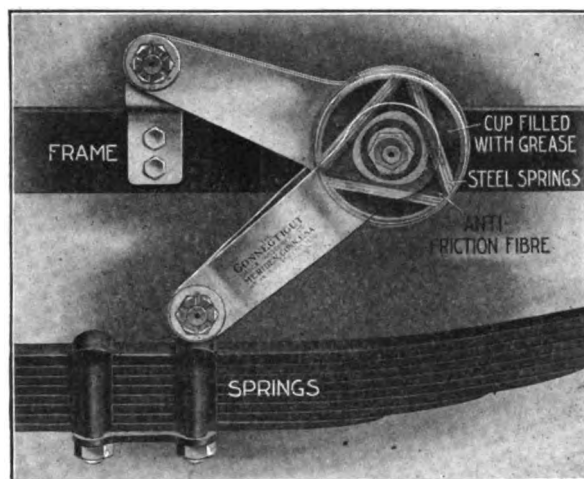
considerably simplified, thus increasing the neatness of the exterior, while, as a slight additional improvement in the same direction, both motors now are treated to a special enameling process, the "30" being finished in grey and the "Forty" in black. For the larger motor also the ignition system has been improved by the elimination of the unit spark coil and extra set of plugs and the adoption of the Bosch dual system. With the large magneto employed, it is possible to run the motor very slowly on magneto ignition alone.

Both motors retain the constant level splash system of engine lubrication. The appearance of the dash has been improved

## SPRINGS INSTEAD OF FRICTION

**They Constitute the Feature of the Construction and Operation of Connecticut's New Shock Absorber.**

Not only has the Connecticut Telephone & Electric Co., of Meriden, Conn., brought out a new shock absorber, a field of manufacture in which it previously has not engaged, but it also has brought out a new company, in whose name the shock absorber business, for convenience sake, will be conducted. The latter is known as the Connecticut Shock Absorber Co., and its home is with its parent in Meriden.



CONNECTICUT SHOCK ABSORBER

As shown by the accompanying illustration, the Connecticut shock absorber, as it is styled, is of the cam and spring type, as distinguished from absorbers using friction plates or perforated hydraulic plungers. A three-face cam works in a triangle of three sets of springs, the latter being sufficiently stiff to give the necessary resistance for the different weights of cars. The springs are placed inside a retaining shell or cup, and a piece of special bone fiber is inserted between the face of the cam and the spring to eliminate wear of one on the other.

The case is packed with non-fluid oil, which surrounds the cam and spring, keeping them well lubricated at all times. The construction is grease tight, so that grease cannot leak out and water cannot leak in. All of the strain comes on the cam, and the bearings for the cam hubs, in the shell, receive practically no wear. This result is accomplished by the triangular arrangement of the springs, equalizing all strains which otherwise might tend to change the axis position of the cam in relation to the springs or the case. Its effect is to allow the absorbers to last indefinitely without attention.

In applying the device to a car, it is necessary to make the setting with regard to the normal position of the vehicle

springs. This is accomplished through the provision of a serrated disc, whereby the neutral position may be obtained. After the original adjustment once is made, no further adjustments are necessary. During the normal movement of the car the shock absorber does not exert any braking effect, the shape of the cam being such that the springs are not brought into action until there is an excessive movement of the car body down or up, in which case the cam bears against the springs, exerting a braking effect and holding the body of the car where it belongs. As the cam movement is progressive, the greater the throw of the car body in either direction, the greater the braking effect. It is pointed out that this arrangement permits full flexibility of the

vehicle springs in the middle range of action, while progressively checking violent depression or rebound. The ends which are supported on the brackets are fitted with renewable bronze bushings and anti-friction thrust washers with retaining cup washers, and are provided with ample lubrication to eliminate annoyance from squeaking or rattling due to wear.

It is possible to adjust the absorbers so that they will have braking effect of 250 pounds each, or 1,000 pounds to a set of four, without in any way retarding the free action of the springs during normal road conditions. This braking effect is accomplished purely by spring action and not by friction.

#### Unusual Cause of Vexatious Noise.

A most distressing and mysterious source of squeaking sounds on the car may be the wood filler employed in reinforcing the torsion rod or the subframe upon which the power plant is mounted. From the very fact that this form of construction is not extensively used, it follows that its possibilities in this connection may be overlooked when search is being made for the cause of unnatural sounds. This difficulty arises when the wood has shrunk sufficiently to form a "working" fit with the surrounding metal, instead of being tightly held in place. The result is that when the member is heavily stressed and tends to bend or buckle, the wood rubs against the metal just sufficiently to cause a scraping sound which, it may be imagined by the listener, comes from almost any and every other part of the car. The remedy, of course, is to draw up all security bolts as firmly as possible and, in extreme cases, to wedge the wood filler or bend in the metal enclosure in order to secure a better fit. A temporary remedy, of course, would be to introduce oil between the rubbing surfaces.

by the substitution of a bull's-eye sight feed for the former cylindrical pattern, however, while on the "Forty" motor a simpler form of plunger pump takes the place of the old gear pump. Incidentally, this change simplifies construction by doing away with both gears on the rear end of the crank shaft. A new style carburetter has been adopted for the smaller motor, which is so well adapted to its requirements that it permits uniform running at very low speeds and also tends to reduce gasoline consumption.

The multiple disc clutch with alternating bronze and steel elements is retained on the smaller model, while the larger one again is equipped with the simple cone type; the operation of the latter is rendered somewhat easier, however, by the adoption of a modified form of linkage. Except for a stiffening of the transmission brake on the "30" model, to eliminate all tendency to rattling, the braking equipment of that model remains as in previous models. The transmission brake on the larger chassis model has an enlarged cam, however, while the emergency hub brakes are applied by means of a wedge working between two shoes which are prevented from rattling by means of suitable springs and stops. No changes have been wrought in either transmission change gear.

The smaller car now is equipped with a pressed steel torque, instead of one of tubular form, while its rear axle hereafter is to be made in single piece pressed steel form. Two universal joints are employed in the propeller coupling, instead of one, as formerly. For the sake of securing roomier body accommodations the frames have been lengthened, although the wheel bases remain unchanged. The frame of the smaller model has been extended 2½ inches, and that of the larger 3 inches. This change, together with a general lowering of the seats, a change in the angle of the steering column and the adoption of the curved type of accelerator pedal, on the "30" model only, conduce to the general comfort of the operator and passengers.

#### Immense Order for Commercial Cars.

What is claimed to be the largest order for commercial cars ever given to a British firm has been placed by a Brazilian syndicate, the Companhia Anglo-Brazil de Auto Transportes, of Rio de Janeiro. The specifications call for 50 20-24 horsepower motor cabs, 50 3-ton lorries, five 15-passenger char-a-bancs and five heavy delivery wagons, or 110 vehicles in all.

#### Sugar to Prevent Clutch Slippage.

As a means of preventing an ordinary leather-faced cone clutch from slipping it is said that common sugar may be used to good advantage. By those who have tried it its effect is said to be much the same as that of rosin, though less liable to cause sudden gripping of the surfaces.



**U. S. M. HEADS HAVE A CONVENTION**

**First Annual Gathering of Officials and Representatives of the Company—Three Days at Cedar Point.**

Three days of last week were devoted to the first annual convention of officers and representatives of the United States Motor Co. and of its affiliated companies, which was held at Cedar Point, Ohio.

The meeting afforded the first opportunity to bring together the combined sales forces of the Maxwell-Briscoe Motor Co. and the Columbia Motor Car Co., although there were representatives from the other United States Motor Co. plants and they

sales manager, of the Brush Runabout Co.; Morris Grabowsky, general manager, and Charles E. Stone, commercial vehicle expert, of Alden-Sampson Mfg. Co.; J. I. Jameson, sales manager, Stoddard-Dayton Co. There were also the district managers, the branch house managers, and a number of dealers, as well as the advertising men of the United States Motor Co. and the Maxwell, Stoddard-Dayton, Brush and Columbia establishments.

**Finds Farmers Lack Cash at Present.**

Reasons why sales cannot be made in a given territory, as reported back to "the house" by traveling representatives, rarely are honored in their reception as being acute and valuable observations, since to the cynical eye of the sales manager they

**HOW HE MADE HIS BUSINESS PAY**

**Purchaser of an Automobile Establishment Prospers by Practical Ideas—His Eye-Opening Experience.**

Practical, common sense business ideas applied to the operation of a modest automobile establishment with garage and repair shop often make the whole difference between success and failure, and the actual steps taken by a Middle West dealer who bought such an establishment and was badly "stuck" in his bargain but who brought the business around to a successful basis in a very short time, are rich in suggestion for those who are trying to



OFFICERS AND REPRESENTATIVES OF UNITED STATES MOTOR CO. GATHERED AT CEDAR POINT

manifested great interest in the methods and deliberations of the Maxwell and Columbia forces.

The many phases of activity in large selling organizations were discussed, particularly the huge sales system and the supervisory organization by which the United States Motor Co. will cover the entire country. This plan consists of selling districts, each embracing a large territory and each having a district supervisor. The system will handle the aggregate output of the company, which will be 53,000 cars, ranging in price from \$485 to \$5,000.

The meetings—some of which were night sessions—were presided over by Horace DeLisser, vice-president of the United States Motor Co., who is in charge of the sales. Among those present were Benjamin Briscoe, president of the United States Motor Co.; J. D. Maxwell, president, and F. D. Dorman, vice-president, of the Maxwell-Briscoe Motor Co.; H. W. Nuckols, vice-president, and F. E. Dayton, sales manager, of the Columbia Motor Car Co.; Frank Briscoe, president, and F. Harris,

may suggest "stalling" in lieu of actually getting business. Nevertheless there may be both significance and value in the report made to a Detroit manufacturer concerning the effort to sell motor cars to farmers at this time by a representative who has been making a six weeks' trip through Kansas.

"All the farmers are easily interested, but they are unable to follow their desires," the field man declares, "because of the lack of ready money. They are in the midst of their crops and the bankers absolutely refuse to advance any money until harvest time. As a result, there will be few sales until after harvest."

As a compensation for this condition, from the automobile manufacturer's or the agent's standpoint, is the fact that when the farmers do realize on their crops they will be in possession of large sums of ready money representing a season's work. With the money in hand in so large amounts, and vigilant dealers camping on their trail, automobile buying is a natural sequence.

solve the complex problems of management and policy, and are trying to make the profits grow. His experience in stopping losses through graft and waste, in solving the labor problem and in building up his trade to prosperous proportions, after having been handed a figurative "lemon," are as illuminating as they are entertaining.

"In one of the daily papers I saw an advertisement," says the dealer, in telling the story in the Spokesman, "offering a number of automobiles and supplies for sale at a low price, due to the illness of the owner. I was looking about for an opportunity to engage in the motor car business and answered the advertisement. In the reply I was invited to visit the establishment, which was located in a small but thriving manufacturing town in the Middle West.

"When I arrived I was shown over the place by the former owner. There were a number of cars in front, and there seemed to be quite a business. In addition to a number of machines on sale, there were quite a few in the repair shop at the side.



Most of the machines on sale appeared to be of the cheap, rebuilt order. In fact, the establishment seemed to be stocked up with low grade automobiles.

"After closing with the proprietor for what seemed to be a conservative figure, I took charge. On the first day I found the boss of the repair department drunk, while there were several machines in the shop for repairs and the owners of two of them were telephoning repeatedly to inquire if their machines were ready. I went into the repair shop with an assistant and tried to fix the cars up myself, but failed to get them out at the time they were promised. I thus disappointed a good patron the very first day. Then another man, who had been dealing with the store for some time but whom I did not know, wanted to borrow \$10 from me and I refused. By this I lost another good customer.

"I had a man help me in the store part, and this man took the place of the repair shop boss until the latter sobered up and returned to work. Meanwhile, in waiting on customers myself I found considerable defective stock in the supply department. In picking up one tire to show it to a customer, the thing burst in my hands. The former owner was in the habit of buying junk lots of stuff at auction sales or wherever he could pick up something in the automobile line at reduced prices. Consequently the stock in the store consisted of a lot of inferior stuff. Just what to do with this material was quite a problem.

"In testing the steering shaft of one of the cheap automobiles in stock in the show window, I bent the shaft with ease. I found patched tires in the supposedly new tire lot. A number of cans of gasoline had been sold to me from which part or all of the contents had been extracted. Several cases of lubricating oil, which I had checked up on the word of the former owner proved to be partly empty. I think one had been emptied and water put in.

"However, I did not like to make a fool of myself by complaining to the police. I ought to have been more careful in my investigation when checking up the stock. I had taken the word of the other man, and it seemed like an insult to him to insist upon opening the packages or counting the articles. I had closed the bargain and paid the money, and I decided to fight the thing to the finish. I fired the drunken boss. I got a good mechanic in his place at \$3 per day, whereas the soak received \$4 and was gone most of the time and did considerable knocking down in charges for all of the jobs he did, for I caught him red-handed several times. I had reason to believe that my assistant in the store was getting a rake-off on cash sales, and I shocked him terribly one day by putting in a cash register. I admire the cash register. I pat it occasionally even now, for my receipts took a sudden leap forward for the better from the very hour of its installation.

"Having decided to make the best of a bad bargain, I proceeded to advertise my establishment by means of circulars, personal letters, and the press. I inserted advertisements in the local papers concerning the fine accommodations I had for automobiling parties desiring any motor vehicle supplies of any kind. I dwelt upon the facilities of the repairing department of my establishment. I quoted prices on certain lines of repairs and supplies. I also sent out price lists, for there had been considerable complaint concerning overcharging by the automobile interests of the locality.

"I discovered in course of time that some of the excessive bills which the owners of the machines had paid in my place were due to the fact that there were one or more rake-offs. The chauffeur got his rake-off, and the assistant in the repair shop got his. Consequently the owner of the machine had to pay quite a good sum for a moderate repair job, although the establishment itself did not receive a very high figure. I cut out this overcharging by having a system of price tags, on which the number of the machine had to be written, the nature of the repairs, and the cost of parts and labor. These tags were made out in duplicate and properly filed in the cabinet made for them. One copy went to the owner of the car, so that he could see just what he was paying for.

"There was much grumbling in my shop when this thing went into effect. I also understood that I lost the business of some of the rich automobilists because the chauffeurs refused to come to my plant to get repairs done after that, as they preferred to go to another shop in the locality where the tab system did not prevail and the chance for a rebate was possible. However, I considered that I could get along without the business of the men who had in their employ dishonest chauffeurs. I had to discharge one of my repair men, too, because he almost told me to my face that unless he could get a rake-off on jobs he would have to have more pay. He referred to the rake-offs, which I am sure he had been getting, as tips. But I knew better.

Another thing that served in time to make my establishment one of repute with the responsible chauffeurs, is the fact that I cleared out a lot of cheap and trashy tires and automobile parts to make room for only the best in the market. The cheap machines and the second-hand truck in stock I sold at a loss to any one who would come to buy. I had an auction sale of broken-down cars and rusted and weak parts of machines which were in stock. I got rid of a lot of inferior lubricating oil by selling it to an axle grease man. There were cans and packages of stuff galore and this was disposed of in a junk-shop. I then began to stock up with new stuff. I had lost some thousands of dollars to date,

but I was prepared to make a new beginning, with a new system and new stocks of machines and parts.

"The nature of my business and the location prohibited the accepting of the agency of any one automobile, so I dealt with the builders of a number of different machines. I had several cars of various types and prices installed as models in the new show windows which I had made with full plate frontage. The windows were well lighted at night, and served to draw the patronage of the night automobiling parties. I derived considerable income from the night tourists. I had to establish a regular night force as time passed. I had a mechanic come to work at seven o'clock each evening, and he remained on duty until one o'clock the next morning. This was his day's work, and I paid him \$3.50 for the time.

"He always made considerably more than that for me, and often times turned in \$20 as a result of the repairs he had made. Besides that he sold articles from the store, and a profit was derived from that. Fortunately he proved to be a good worker and an honest man. In time I gave this man a commission on the night sales of certain articles, and he added about a dollar a day to his pay. Later on some agents of articles required by night automobilists arranged with this man to handle on commission the sale of articles. One-half of the commission was turned over to the store, and we made a good deal out of this enterprise.

"I also fitted out a touring car for country inspections and runs, and got considerable recreation by riding out with the car on emergency calls. I had one of our speediest and most powerful cars fitted out as a repair and emergency car. I had a bench fitted up in the rear seat, with vise attached, and drawers arranged for holding a variety of tools most needed in road repairs. We carried towing apparatus to haul a disabled car to the store. We had extra tires and numerous duplicate parts of the engines and steering gear of different makes of machines most used in that location. I put up signboards along the principal roads leading to town, advising automobilists of the number of my telephone call, street and location; also telling the stranded party what I could do on an emergency call. I had the emergency machine always ready.

"A telephone message would be received, and in a few moments the road car would be speeding in the direction of the disabled automobile. Often the repairs were effected right there. Then again the machine had to be hauled to the shop. I got much business this way. In fact, the income of the sales department and repair shop got to be liberal and encouraging, and I forgot to have charges preferred against the former owner, who had next 'o swindled me.

## TO OBTAIN ORDERS FROM MEXICO

Consul-General Outlines the Most Effective Methods—The Cars in Demand and the Opportunities Offered.

After outlining the present situation in Monterey, Mexico, United States Consul-General Philip C. Hanna, of the district, gives some valuable suggestions as to methods of increasing the strength of the American automobile industry in that promising section. Although motor cars hardly were known in that section three years ago, 32 cars are now registered, 90 per cent. of them being American made. Two well known manufacturers have local representation, there is one well-managed garage, and a company has been formed to exploit a motor cab service. The latter is said to have six machines in transit, and plans to order more in the near future.

The present demand seems to be for touring cars which sell on the ground for \$1,500 to \$2,000, the price including factory cost, freight, commission and Mexican duties; a few more expensive cars, however, are in use. The general upkeep cost, it is thought, averages about the same as that in "medium-rough" country in the United States. Gasolene sells at 32 cents per gallon and lubricating oil at 55 cents. City license costs \$1, and monthly taxes are from \$2 to \$5, according to size of machine. Special permits and a \$250 bond are required to enter the Porfirio Diaz Park. Special permits are also required for racing. Competent Mexican chauffeurs are to be had for \$20 to \$37.50 (American gold) per month.

Turning to the commercial aspect of the problem, Consul-General Hanna remarks that while the American product is well in the lead at present the field is large and wealthy and the chances for European cars are tempting, providing a good selling system is adopted. The American manufacturer can, however, combat such competition by considering a few points, some of which may seem out of line to the American who has not had actual business experience in a foreign country and has not been thrown into social and business relations with the people themselves. He adds:

"The idea of having a general agency at Mexico City with sub-agents in northern Mexico is considered bad. The Monterey agent should deal direct with the manufacturer. The manufacturer must take into consideration that agents in Mexico, as in any other foreign country, have difficulties and peculiar conditions to contend with, which are absolutely not known in the United States. The amount of money that can be invested in automobiles (cash down) by a prospective agent is not the most im-

portant point to consider. The agent should, above everything else, have a good name; he should receive the very best commissions possible to concede, and the manufacturer should give him the same help in the way of general and local advertising that is given to their agents in the United States.

"Advertising in publications in the United States does not cover the ground, hence, attention must be turned to Mexican publications and other mediums operating in the territory, or part of Mexico, desired to be covered. Advertising should not be placed by the manufacturer himself, through advertising agencies in the United States, or through any other source without first consulting the agent in the territory to be covered, as conditions are entirely different from those in the United States. If the agent himself does not understand the science of advertising and the worth of the different mediums, he can easily procure reliable advice from competent persons on the ground. The manufacturer who contracts with his agent to the effect that the agent is to stand all expense of the local advertising is likely to be the loser in the long run.

"Generally speaking, the Monterey streets are very good. The city contemplates repaving all the principal streets. The wide and well-paved drive, Calzada Union, is about two miles long and wide enough for twelve carriages to stand abreast. All in all, Monterey and territory for hundreds of square miles around it constitute a most interesting field for the manufacturer and the automobilist. While the roads outside the city are not the best, they are passable, and Monterey machines are running out into the country in every direction from 50 to 100 miles, and many times much farther. The wealthy haciendados (planters) are beginning to see the advantage of the automobile as a means of transportation between the city and their lands, even at long distances.

"The strong, durable machine, a good hill climber, and one that will stand muddy roads, as well as being protected from the dust, is the one that will eventually win in this section. The agents should carry a full line of parts, or at least those parts which experience has shown most likely to be needed.

"The question of credits is no more difficult here than at home. Only well-to-do people will purchase automobiles, and such people are good credits. The national and individual likes and dislikes should be carefully studied and catered to. A prospective purchaser might have his machine decorated in some particular way that suits his taste, or he might want his car to have a name. All Mexican farms and plantations as well as city and crossroad stores have a name. Why not the automobile? This is only a suggestion along the line of national traits."

## CONCERNING MOTOR STAGE LINES

Its Elasticity and Small Requirements as Compared with Trolley Service—How One Prospector Achieved Success.

Much of the same sort of adaptability that characterizes the quick-lunch business as carried on in the lesser towns and villages applies in the use of motor vehicles for passenger and luggage transportation. Unlike the settled food merchant, the lunch car proprietor has a true prospector's equipment; if business fails him in one location, he can try a second, a third, as many as may be necessary until he settles upon one where he can catch enough trade to pay for his canned eggs and give him a little profit on every sandwich. Then he usually boards in the trucks beneath his establishment, installs electric lights and signs a contract with the pie baker.

Settled ideas in regard to the suburban express and passenger business lie somewhat along the lines which have been run out by the street car interests. It is postulated that it will not pay to instal a line unless there is good prospect of a fair run of business at the start and of increasing patronage in future. Local trolley exploitation even depends for financial backing on town governments which it is supposed will be benefited by their advent. Once the tracks are laid and the line is in operation, it is a comparatively easy thing to hasten real estate developments and encourage industrial projects to take root and bear fruit.

But some of these ideas are destined to abandonment as time goes on. With the motor vehicle there are fewer fixed requirements. Relatively speaking, there is only a very small burden to be carried. The minimum equipment necessary to instal and operate a service in any locality is one vehicle of the type chosen as suitable for the character of the work. No power plant is necessary, no right of way, no road bed, no useless equipment, no heavy operating force; just one car and one driver constitute the unit of operating force; just one car and one driver constitute the unit of operating equipment. And the system is capable of endless multiplication.

When a number of vehicles are running it is possible to effect operating economies by equipping a garage, fitting up a repair shop, hiring a maintenance crew, investing in surplus rolling stock to meet emergencies and otherwise placing the system on an independent basis. But it is a signal mark in favor of the automobile as a means for pioneering transportation ventures that such equipment is not absolutely necessary to its operation.

Here is the suggestive experience of one motor stage line "prospector" in upper

New York state: With his single sight-seeing car, and an ambition to become a transportation magnate, he started a route in the vicinity of one of the smaller cities. Business did not flock to the standard of the motor 'bus as it had been fondly expected it would. Another route was tried but with no better success. Then, acting on the suggestion of a garage proprietor, the still ambitious transportation system in embryo was diverted into a third channel. Here, on a route something over a dozen miles long, with no railroad competition and trolley competition over only a portion of the distance, another start was made.

The new field was not entirely without competition, however. A stage line was in existence and to some extent threatened a hard battle for existence. But on the day after the new 'bus made its first trip, the stage driver advertised a horse for sale, and at the end of the first five days he was forced to the mournful acknowledgement that he had carried but two passengers. Meantime, with two trips a day, the automobile had been carrying loads both ways. And by adding a third trip on week days and running continuously Sundays and holidays, the automobile man has begun to see his way clear to realizing some of his early dreams.

To change the route of a railroad or even a trolley line in order to get a better run of business, generally speaking, would be a physical impossibility; such a project could be entertained only where the gain would be sufficient to tide over the enormous cost of the shift. The motor truckman or sight-seeing adventurer is bound by no real estate and investment ties, and generally, if his business insight is keen, he can get a good start before hostile interests are aroused to interference with his undertaking. He can inaugurate an experimental service at any place where the opportunity appears to be hopeful. Once started, he can, without serious cash outlay, test the possibilities of extending the route or increasing the frequency of the service until he is certain that he has thoroughly explored his field and is working it to best advantage.

Early in the existence of the motor 'bus it was pointed out that it possessed a great advantage over the ordinary street railway line in that it could follow the demands of traffic on different days. On Sundays and holidays, for example, the passenger movement naturally follows different channels from those covered on week days. The ease with which routes and headways may be altered to suit the demand makes it possible for the motor car line operator to take full advantage of these shifting tides.

An instance from the administration of the Fifth Avenue Coach Co., which operates the only line of motor 'busses in use in New York City at present, sheds a little different light on the same idea. Recently

a portion of Riverside Drive, over which one branch of the service extends, was blocked for repairs. That necessitated the diversion of the 'busses from the drive to Broadway for a portion of the route. But to cross over from the Drive meant the invasion of a residence section peopled by particular landowners, domiciled on narrow streets. Such people were liable to object to the groaning and clattering stages just as they would object to a herd of cattle or a circus parade. Hence the route was changed every day or two; one cross-town street would be used until sufficient time had elapsed for the caretakers to inform the absent residents at their summer homes that the 'busses had encroached upon their quiet thoroughfares, and then, before any complaints could be made or any formal protests entered, the adjoining street would be invaded.

So the "jog" in the route was moved up one block by successive stages until the drive again was open to traffic. No serious opposition was encountered, and as the bulk of the summer patronage of the line is terminal business and composed for the most part of country cousins visiting the big town, the income did not suffer visibly.

The same principle applied in a broader way renders it profitable to inaugurate motor stage and express service in localities where the season feature obtains. At summer and winter resorts, where the lack of continuity of the service would forestall the possibility of setting up a railway line, frequently there is good opportunity for the motor vehicle to be put to work. At the end of the season, the outfit can migrate, like the hotel proprietor and his crew, to another resort, or, in rare and favored localities, it is possible that it may be diverted to other uses.

Thus, there are certain towns where a staple industry exists independent of the resort enterprise, manufacturing, farming, lumbering, and where there is real need for cheap and effective transportation of freight. By making favorable terms, the motor vehicle operator might succeed in swinging enough freight business during the off-season months to provide a fair amount of work for his rolling stock, using the same chassis for passenger service in season and freight service out of season. Such an opportunity would be a rare and golden one, to be sure, but the seeing and grasping of such an opportunity, the ability to devise ways of applying the motor vehicle to a variety of applications, is what is destined to enhance the fortune of the motor truck operator and to increase the utility of the commercial automobile.

Still another phase of the motor wagon system as contrasted with the railroad, with which ultimately it may be in closer competition than with the horse, reveals a slightly different though logical extension of its possibilities. Commercial automobile service has been referred to as composed

of a series of transportation units in multiple; the unit is one wagon with its crew and it is capable of indefinite extension as occasion may warrant. But where several systems or lines are operated in conjunction its flexibility carries another advantage, since the reserve equipment of one line may be applied to another. Garage equipment and repair facilities may be centralized and economies multiplied in exactly the same way as though the entire system were concentrated in a single compact field, instead of being spread out over several adjoining towns or villages, or it may be made to encompass such varied purposes as stage lines, sight-seeing routes, express service and contract delivery work.

But, after all, one of the most hopeful and inspiring visions which the present state of the motor wagon presents is that of the independent prospector with his single rig, who, like the night-lunch man, travels about until he finds a good stand. He is the unit, from which not a single system but multiple systems will spring. He is destined to become a strong and potent element in the transportation of the future.

#### Big Mileage for London's Motor Mail.

While the postoffice authorities in New York and other large American cities are not yet quite decided as to the value of the automobile in the postal service, as indicated by the slow installation of motor-propelled trucks and wagons in place of the slow and ineffective horse-drawn wagon, statistics from London show that the British postoffice has saved over \$300,000 last year through the installation of 13 motor mail service routes in the largest city of the world. Altogether the British postoffice operates 60 services, among them the 13 foreign parcel mails, which include such long runs as from London to Dover, 84 miles. The automobiles attached to the London office roll up a monthly total of 40,000 miles traveled under load.

#### Accumulators for New Traction Line.

Recently introduced in New York City with success, the use of storage batteries for operating traction cars instead of the conventional overhead system has gained another convert in the newly organized Cincinnati & Pittsburg Electric Railway Company, which just has been granted a charter, and will construct a line connecting the two cities. Work will commence shortly and the system is expected to be in operation within three years.

#### New Colorado Stage Line Started.

Fort Collins and Elkhorn, Col., 45 miles apart, now are connected by automobile stage, the initial trip of the new service being made last week. The line will be an auxiliary to the regular stage between the two towns, and one round trip will be made daily.

**THE ACTRESS AT THE SEASHORE**

Being the Story of How Miss Priest Avoided Crowded Hotels—Motor Car the Chief "Property."

While photographs of actors, actorines, baseball players, pugilists and political candidates seated in automobiles long since ran their course and now are tabooed by most well regulated and self-respecting publications, and the press agent seeking publicity for automobiles must needs give new twists to his ingenuity, the story and the picture showing how an actress "beat her hotel bill," so to speak, by converting an

and by simply swinging the car around, it was kept open to every breeze, no matter from which direction it blew."

**Actor Dodges a Huge Rental Bill.**

With all their fondness for motor cars, "actor folk" appear far from fond of the expenses incident to motoring, judging from the numerous big bills for automobile hire that appear in the liability columns of those who find the voluntary bankruptcy process convenient for throwing off the burden of debt. Although he has not resorted to the bankruptcy court, Raymond Hitchcock, the actor, has so far found means to avoid paying a little item of \$4,337, for which the Johnson Service Co., of New York, renters of motor cars, obtained

**KOENIG, HE IS A VERY BUSY MAN**

Drops Cares of State to Witness his Political Camp Followers Examine Chauffeurs—Slow Progress Made.

In respect to his method of exercising the rather liberal options afforded him under the terms of the new law, the activities of Secretary of State Koenig are exciting no little comment. Besides permitting his name to appear in connection with numerous interviews in which are expressed his determination to enforce the law to the last letter, the Secretary is finding time to devote directly to the business of conducting the necessary examinations. Indeed, this week he was able to drop his work at Albany and run down to New York in order to address a group of candidates in Examiner-in-chief Elliott's offices, which are the headquarters of the Touring Club of America, of which "club" Examiner Elliott is secretary.

Following the announcement that, in order to have their licenses by the first of August, when the law goes into effect, chauffeurs must file their applications at Albany by the 20th of this month, two examinations have been held. The greatest number of men handled on either of the two days was somewhere about a thousand, and with a total of some 30,000 drivers in the Greater New York territory to be examined, and only seven more examinations planned before the first of the month, it is plain to see that a good many drivers will have no legal right to drive when August comes around. It is claimed that an average of 2,000 men can be handled at each examination, though that number of candidates have not been passed upon as yet.

Just how the situation is to be handled under the circumstances, Secretary Koenig has not yet taken time to explain. He has announced, however, that the law will be rigorously enforced, and that at first the police will be instructed to warn drivers who are without licenses and instruct them in the steps necessary to obtain them. Following such warnings, it is said, stricter measures will be resorted to, including the severe penalties imposed by law.

Experienced drivers, who are anxious to protect their jobs, are complaining that the examinations given thus far have not been such as to bring out the applicant's real knowledge of the car and its operation. Such queries as: "If the gasoline motor could not pull the car up a hill on high gear, what would you do?" or "In the event that a vehicle was coming toward you on the highway, what precaution would you take?" they say could be answered after a brief study of text books, but without any real knowledge of the mechanism of the



MISS PRIEST AND HER "BUNGALOW" IN SEASIDE GARB

automobile into a seaside bungalow, is sufficiently off the hackneyed path to prove of prime interest.

The actress in the case is Miss Beatrice Priest, of the Lew Fields Company, and the car a Studebaker. The accompanying picture shows how the young woman acted the part at the seaside and the story it runs this way:

"Finding all the hotels along the shore crowded, she determined to use her car as a camping outfit. She took it to the beach at Rockaway and made a seashore bungalow out of it.

"The car was fitted with an adjustable removable tent top, which was raised at night to permit the placing of cots from the top of the back seat to the top of the front seat, thus affording comfortable sleeping quarters. The interior of the car was equipped with a complete oil-cloth, covering, for use during the bathing hours, making the occupants entirely independent of bath-houses.

"All the comforts of home were enjoyed;

judgment in April, 1908. The sheriff has returned an attachment unsatisfied. Like others with actors' names on their books, the company is considering the likelihood of having to charge the amount off to profit and loss.

**Ohio to Supply Fine Road Maps.**

As a result of a quite unusual act of philanthropy on the part of the Ohio legislature at its last session, motorists soon will have an opportunity to procure a complete set of road maps of the Buckeye State at cost, instead of paying fancy prices for them, as usually is the case when legislators set the prices for things the motorist must or should have. In accordance with the law enacted by the Ohio solons the maps are now being printed and will be ready for distribution early next month. They will contain extensive and valuable road data of all counties, the character of road being indicated by colors, and will sell for \$1.50. They will be supplied by the Secretary of State at Columbus.

machine. The question: "Name all the parts on an automobile that should be lubricated and state whether oil or grease is used," likewise is held to be elementary.

To add to the unpleasantness, disgruntled operators are complaining loudly about some of the examiners, claiming that they themselves are not competent to run machines. Only about five per cent. of the applicants thus far examined have been refused licenses. These will be given a second opportunity to face the examiners.

#### Catskill Hotelmen's Hopes Deferred.

The many schoolmarms and Macy and Siegel-Cooper salesladies and salesgentlemen who spend their hard-earned vacations in the Catskills, will be deprived of the midsummer treat which the hotel and boarding house keepers had arranged for them. That nice little automobile reliability run from New York and the climbing contest up the Kaaterskill Clove grade will not take place until after they have returned to their books and their dry goods, respectively, that is, if the contests take place at all. When the Morgan or Motor Contest Association first heard the call of the Catskill hotel keepers, he arranged the events to occur July 16th and 18th, which was Saturday and Monday last; but they did not occur. The M. C. A. was obliged to send regrets instead of cash customers in automobiles to the hotel men. He says he could be assured of only a beggarly 30 entrants, and as he has had at least 29 on several of his previous excursions he wouldn't lead such a small squad to the mountains, and they would have to use 1910 cars instead of 1911 models, too. Also there are quite a few men on New York's "automobile row" who are absent on their vacations, and as the "row" supplies the money-spenders for these M. C. A. affairs, it is believed that postponement until September 10th, 11th and 12th will result in the enlistment of fully 31 of them. Accordingly the "business" has been deferred until those dates. There will be more scenery in the Catskills at that time, anyway; also more empty rooms in the hotels.

#### Following Goat Trails in Mexico.

Although the pilots of the "Under Three Flags" Flanders car encountered some strenuous going in Canada and in the United States, they have been up against the real thing since they crossed the Mexican border. They have been following what they describe as "goat trails" and have practically had to build roads in many places in order to make progress. They reached Saltillo on the 14th, being the first automobilists, they say, to make the journey from Monterey. In an air line the distance is but 42 miles, but they were obliged to cover 142 miles of circuitous and heartbreaking country in order to get through. They now are in the Central Mexican desert.

## WAR BREAKS OUT IN MONTICELLO

**Latest Reports from Front Give Brown the Advantage—He was Selling Gasolene for One Cent a Gallon.**

Motorists whose fuel tanks are running low are advised to get into high gear and head for Monticello, N. Y., with all possible speed. It doesn't matter much how far it is to Monticello so long as the trip can be made before the visible supply of "motor mileage" has run short. For indications point to Monticello's running dry within a short time unless some unforeseen occurrence arises to cause an increase in the price of the needful. At last accounts Monticello quotation on gasolene, real gasolene of the "S. O." brand (black letters painted on a big red tank), was one cent, United States currency, per gallon. Some said it might go lower, but others thought the supply might run short before another drop could occur.

It all happened because two local retailers, R. S. Turner and Floyd Brown, became entangled in a rate war. It is not known which one it was that first started the bung in the gasolene barrel, but at all events day by day they have been taking turns at clipping a penny a day off the price. Last Saturday morning a large sign on the front of his establishment announced to the motorists of Monticello, and such out of town visitors as there was room for in the line, that Turner's price for the day was seven cents a gallon and no rebate on empties.

Seeing the activity at Turner's place, Brown immediately got busy and announced a cut to five cents a gallon. Then, failing to make the desired impression, he laid hold of the town crier and sent him forth to inform the populace that the real price for the day was one cent a gallon. Needless to add, he got all the business there was left, while Turner sat down to figure how much it would cost him to give the stuff away. He found it would amount to just 13 cents the gallon.

#### How a Novice Stopped the Trolleys.

Part of the nervousness which most novices display when attempting to drive a car for the first time is due to their natural uncertainty of the consequences should they manipulate certain portions of the control mechanism in an undue manner. Generally speaking their fears are groundless, which explains why so many people learn to drive in a short time. But in the case of Frank Griffith, banker, of Columbus, Ind., it was different. When, after riding peacefully in his car for many uneventful miles, he decided to try his hand at driving under the tutelage of his son Jeffery, he failed to grasp the idea that

not only his hand but his foot, or rather his feet, were on trial as well.

In a moment of critical uncertainty as to just what to do next, his right toe somehow found the accelerator pedal. At the same instant the heavens fell in, or so it seemed to the frightened banker, and the whole machinery of the Indianapolis, Columbus & Southern Traction Co. came to a standstill. When he had been resuscitated and reduced to a state of relative mental calm, it was explained to Banker Griffith that when he depressed the accelerator pedal, the car had shot forward, jumped a curb, crushed into a pole carrying the high tension current for the traction company's service and jolted one of the feed wires to the earth, where it had grounded the entire system temporarily. Thereupon every trolley car on the line immediately stopped. It may be mentioned that the automobile, on the toe of whose accelerator Mr. Griffith all unwittingly trod, was not seriously damaged in the accident.

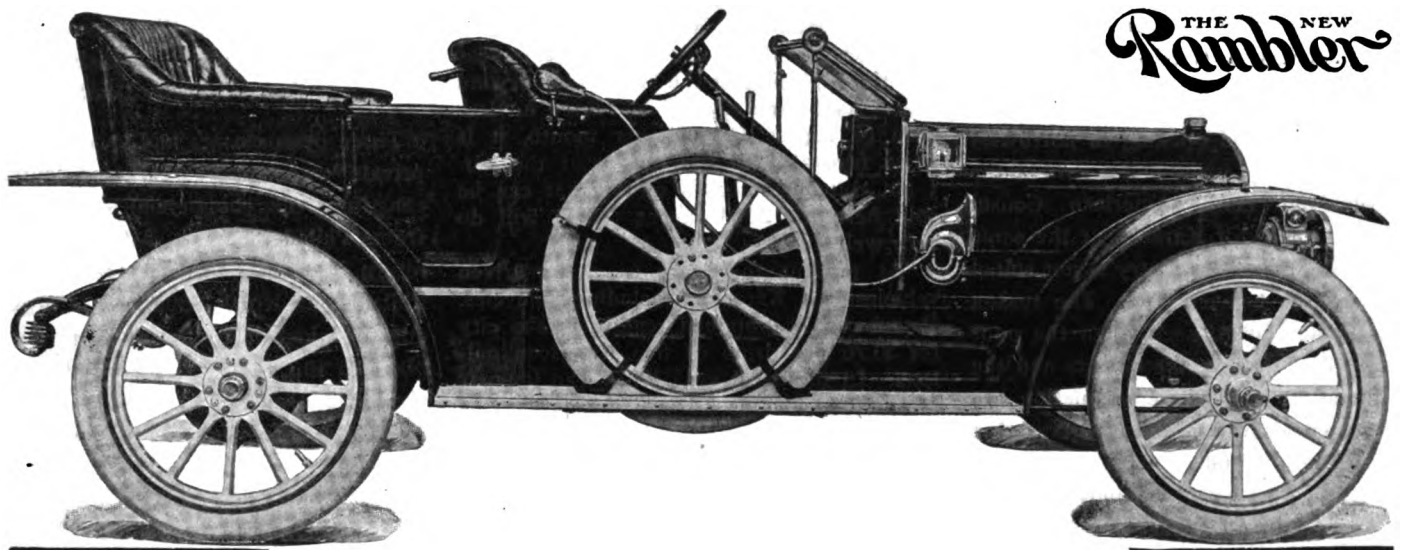
#### Chicagoans Dispense Annual Charity.

Through the generosity of the Chicago Automobile Trade Association, aided by the local automobile and motor clubs, more than 1,500 inmates of the Windy City's orphan and old folks institutions enjoyed their annual outing through the city parks on Thursday afternoon, 14th inst. This year the tradesmen and motorists responded more generously than in former years with tenders of cars, over 150 machines being in line, and naturally the number of guests was greater. After picking up the unfortunates at the various establishments, the cars assembled on Michigan avenue, where the parade started at 2:30, a quartet of motorcycle policemen heading the procession. A large truck well loaded with peanuts, candy and other sweets was stationed near the starting line, and the goodies were handed out bountifully to the occupants of the cars as they passed. Embracing the boulevard system, the party visited Lincoln, Humboldt, Garfield, Douglas, Washington and Jackson parks and then returned to the starting point where it disbanded, the outing occupying about three hours.

#### Same Old Story and Same Old Result.

Failing to heed the warnings conveyed in the numerous accidents resulting from attempts to fill the gasolene tanks of motor cars before first extinguishing the lamps, Calvin Denman, of Madison, Wis., was well scared and slightly burned last week while tempting Fate in this fashion. While filling a tank he dropped the can, spilling some of the fluid, and the vapor igniting from the lamps, Denman was enveloped in flames in an instant. Employees from a nearby garage ran to his aid and extinguished the flames. The car was damaged considerably.





THE NEW  
**Rambler**

**T**HE Fifty-four Toy Tonneau is a mid-season New Rambler model. It is an evolution from the Close Coupled model, designed for the same demand, but a little more roomy.

Its advantages are low seats, two inches longer than usual from front to back. Seat cushions tilted and rakish seat-back to correspond. Body smaller and lighter than the touring car but tonneau roomy enough for three people of average size. Three inches more leg room in front than touring car. Rakish steering column.

With five lamps, Prest-o-Lite tank or generator, magneto and storage battery, horn and tools, \$2,250. Top with side curtains, \$100. Wind Shield \$40. Spare Wheel \$85.

**Thomas B. Jeffery & Company**

Main Office and Factory: Kenosha, Wisconsin

Branches: Chicago, Milwaukee, Boston, Cleveland, San Francisco

## ONLY SMALL CARS CAN BE USED

Many Reasons Why they are Better than Big Machines in Northwest India—Operating Cost is Low.

Discerning a good opening in northwest India for American made motor cars of the light runabout class, American Consul Stuart K. Lupton, of Karachi, at the same time explains that the country is not suited for cars of the heavier type. The reason for this is not far to seek when the poor condition of the roads, the climate and the temperament of the native population are taken into consideration. He believes that light machines should find a good market on a basis of pure economy as compared with the garri, which they are competent to replace.

"There are not more than 200 miles of paved road in Sind, a district covering more than 53,000 square miles, about half of this being in Karachi, and dust storms are almost continuous, so that there is not much incentive toward the use of touring cars," says Consul Lupton. "The average native seems unable to adapt himself to changed conditions. He has been accustomed to bullock carts all his life and has taken his time in getting out of their way. When a vehicle approaches him at a much greater speed he can not realize the fact and is almost sure to go the wrong way, and the car must be stopped instantly, a procedure somewhat disastrous to the heavy car. Rubber deteriorates rapidly and roads are bad, so that the car should be light. Almost every house in Karachi is provided with stables, which were built for horse vehicles, and are consequently too short for the large car, and the roads are full of sharp turns, so that a long wheel base is a source of trouble.

"Practically the only use for cars is as a means of transportation for business men and their assistants. It is the custom for these men to be allowed a garri, or victoria, but it is bad policy to expect more than 10 miles a day from a horse in this climate. Finally, the city of Karachi being comparatively modern in its development, there are none of the old seignoral business houses that are to be found in other parts of India. The average man of business is an agent and not a partner of the house he represents; he is on salary and cannot afford the expensive car. The result is that the ideal car for Karachi, and this means almost every other city of northwest India as well, is a small, light, two-seated car, simple in its construction and easy to operate, with a wheel base of 90 inches or less, and a low price. A rumble seat should be added for the native caretaker, who invariably attends the car.

"A car of this type, with an average mile-

age twice that of a garri, can be operated with average care at a monthly cost of 50 rupees (\$16.22). This will include the cost of renewing the inner tubes every year and the replacing of the shoes each second year. As a garri can not be rented for less than 65 rupees (\$21.08) per month, it is quite favorable to the owner of the car. I am convinced that a motor that can be sold here for 2,500 rupees (\$811) will do very well.

"At present there are 64 motor-driven vehicles in Karachi, including bicycles. Petrol can be obtained readily in the city for \$1.76 per drum of five American gallons. In the fiscal year 1907-8 the imports of such vehicles at Karachi were valued at \$43,255, all being supplied by the United Kingdom. In 1908-9 the United Kingdom furnished \$43,846 and the United States \$1,795. In spite of the imports being credited chiefly to the United Kingdom, most of the cars in use are French. Having been exported to Karachi from England, however, they are credited to the latter country."

### Possibilities of New Illuminating Gas.

Considerable interest has been aroused over the possibilities of Blau gas, as it is known after the name of its inventor, because of its property of liquifying under pressure to 1-400th of its volume at atmospheric pressure. Although it contains most of the same elements as ordinary illuminating gas, it is free from carbon monoxide and therefore is non-poisonous; its range of explosion is 1-12th that of acetylene, while it is cheaper to produce than that gas. It is applicable for illuminating and blow-pipe purposes, and is readily transported in steel bottles.

### To Remove Rusted Nuts and Screws.

To remove nuts and set screws which have rusted in place it is a good plan to wind a bit of cotton waste around the affected fastening member and to saturate it with kerosene oil. By that means the kerosene can be kept in contact with the rusted surfaces and will be prevented from draining off as it otherwise would do. After the oil has been allowed to soak into the rust for a period ranging from several hours to a day or two, it usually will be found that the parts can be separated without difficulty and without risk of damaging them.

### Military Commendation for Motors.

Terse, flattering and comprehensive is the statement made by a prominent European military official in connection with the abilities of the motor truck. He said: "An ordinary army supply wagon drawn by four horses carries a maximum of 2,500 pounds. A motor truck of the latest powerful types easily takes three times as much, goes three times as fast, with one-tenth the risk of becoming disabled."

## TRUCK CONTEST RULES COMPLETED

Philadelphia-Atlantic City Run is Divided into Three Classes—Vehicles Must Carry Capacity Loads.

Three open classes and three classes for private owners, that is, merchants, will constitute the commercial vehicle contest from Philadelphia to Atlantic City and return, 120 miles, August 12-13, which the Philadelphia North American is promoting and for which it is offering as prizes silver plate to the value of \$1,000. The classes are as follows:

Class A—Vehicles of 1½ tons capacity and less.

Class B—Vehicles between 1½ and 3 tons capacity (3001 pounds to 5999 pounds).

Class C—Vehicles of 3 tons capacity and above.

The contest will be open only to freight-carrying vehicles. Each truck will be required to carry either merchandise or sand bags to the amount of its announced catalog capacity. In addition to the driver, each vehicle must carry an observer, and may also have a helper, if desired.

The observer of course will see that the various controls are reached on time, and also keep a record of the amount of gasoline and oil used on the journey and also of repairs and tire replacements made.

At the end of the run the total cash value of these supplies will be totaled, and the total expense will be divided by the number of pounds carried. The result will show the cost per ton of carrying merchandise the distance of 120 miles.

In the case of electric vehicles, the cost per pound will be determined by noting the number of times the car is charged, and by dividing the total cost of charging by the number of pounds carried.

A time limit will be fixed, arranged to fit the different classes, and penalties will be imposed for failing to reach the various controls on time.

### Eliminating Garage Dampness.

It is important that the garage should be free from moisture. Dampness, by causing metallic parts, both ornamental and mechanical, to corrode, greatly increases the labor necessary to keep the car in good condition, also tending to cause deterioration in such parts as are not subject to frequent attention. A moist atmosphere also tends to kill the gloss of newly varnished surfaces, and may cause upholstering fabrics to moulder. Difficulties of the sort occasionally arise in old buildings which have been reclaimed from other uses. Tight walls, well cemented basements and good ventilation are the usual methods of putting an end to the difficulty that otherwise is encountered.

## RECENT PATENTS.

960,822. Combined Rear Light and Number Tag. Absalom F. Clark, Toledo, Ohio, assignor to Morton D. Teal, Toledo, Ohio. Filed July 19, 1909. Serial No. 508,450.

In combination, a number tag having slots and holes formed therein, a bracket having a body portion, legs formed integral with said body portion, and feet formed with the ends of said legs, screws passing through said feet and the holes in the tag for securing said bracket to said tag, and a lamp provided with a white and a red glass, the rays passing through the white glass adapted to shine upon the number tag.

960,832. Hood for Motor or Other Vehicles. James Sime Cree, Glasgow, Scotland. Filed Aug. 20, 1909. Serial No. 513,878.

A hood for motor or other vehicles, comprising front and rear series of adjacently pivoted hoops relatively so positioned upon the vehicle that the front hoop of the rear-series and the rear hoop of the front series abut at their upper parts when the hood is open and pivotal connection between the abutting parts, the supplemental hoops in each series being carried by said abutting hoops respectively.

960,897. Running Gear Construction. Emil Gruenfeldt, Cleveland, Ohio, assignor to The Baker Motor Vehicle Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 28, 1909. Serial No. 535,229.

1. In a device of the character described, the combination with a self-propelled vehicle comprising a frame, a front axle, a rear live axle, and a motor driven shaft for driving the live axle sections of said rear axle and journaled in the housing of said rear axle, of full elliptic springs, one at either side of the frame, interposed between the said live axle housing and the said frame, each of said springs having its lower half rigidly secured to the live axle housing, means for pivotally connecting the upper half of each spring to the frame, and links, each pivotally connected at its upper end to the front of the adjacent spring, and at its lower end having a pivotal connection with said frame.

961,077. Means for Facilitating the Starting of Internal Combustion Engines. Frederick Purdy, Kenosha, Wis., assignor to Thomas B. Jeffery, Kenosha, Wis.; Kate E. Jeffery, Charles T. Jeffery, and Harold

W. Jeffery, executors of said Thomas B. Jeffery, deceased. Filed Dec. 23, 1908. Serial No. 468,888.

1. A fender for the purpose specified comprising a fender body, parallel arcuate hangers extending backward from the fender body, guides in which said hangers are received and adapted to slide in a curvilinear path, and means connected with said guides for fastening the hangers against sliding movement.

960,976. Fender. Albert Littman and William J. Lackie, Cleveland, Ohio, assignors of one-third to Niels T. Merck, Cleveland, Ohio. Filed Aug. 18, 1909. Serial No. 513,489.

1. In an internal combustion engine, a plurality of engine cylinders, pistons in said cylinders, means for normally exhausting pressure from said cylinders at predetermined points between the ends of the working strokes of said pistons, and means for maintaining the cylinders closed against atmosphere when the pistons reach said predetermined points upon stopping the engine so as to maintain pressure in the cylinders.

961,097. Gear Case and Housing for Automobiles. Charles W. Blackman, Cleveland, Ohio, assignor to Parish & Bingham Company, Cleveland, Ohio, a Corporation of West Virginia. Filed Jan. 29, 1908. Serial No. 413,235.

1. A gear case and housing formed of two members having an enlarged hollow gear case portion within each of the same and an opening through one of said hollow portions, and flanges on said members for connecting the same together and the contracted portion of said members having an enlarged end portion thereon.

961,104. Means for Automatically Inflating Pneumatic Tires. Roger Connell, Westport, New Zealand. Filed July 12, 1906. Serial No. 325,932.

In a tire inflater of the class described, in combination, a tubular union, a flexible piston rod passing slidably through the union, a cap fixed to the top of the piston rod and having perforations, a plunger to which the cap is screwed and having a valve seat, a spring operated valve fitting the valve seat, a hollow seat upon the plunger, nuts screwed upon the neck cupped leather washers and attached to the union, and a

valve casing having a large internal diameter and through which the piston rod passes, and to which the union is attached, as set forth.

961,136. Spark Plug. Robert Jake, Rockyridge, Ohio. Filed June 9, 1909. Serial No. 501,039. Renewed April 21, 1910. Serial No. 556,848.

1. In a spark plug, a body provided with an opening therethrough, an integral yoke on said body provided with a threaded sparking terminal held in the threaded opening and provided with means to engage a tool, one of said terminals being provided with a cup shaped end.

961,152. Internal Combustion Engine. William W. Morse, Newark, N. J. Filed April 20, 1906. Serial No. 312,778.

1. In combination with a mixing chamber of an explosive engine, a source of supply for liquid fuel, piping from said source to the mixing chamber, means for heating said piping, and an air vent in said piping between the heating means and the supply, an air intake port to said mixing chamber independent of any combustible vapor intake port.

961,158. Signal for Motor Vehicles. Robert M. Pierson, Bronxville, N. Y., assignor to Charles F. Brown, trustee, Reading, Mass. Filed July 17, 1909. Serial No. 508,227.

1. In combination with a vehicle driven by an internal combustion motor, of a warning signal carried by said vehicle and operated by the suction of the motor.

961,284. Carburetter. Ernest N. Broderick, Detroit, Mich. Filed March 25, 1908. Serial No. 423,108.

1. In a carburetter, an annular float chamber provided with a lateral hollow lug, a valve seat in the lug, a closure therefor, an upright stem secured to the closure longitudinally reciprocable in the lug, a lever pivoted in the lug and adjustably secured at one end to the stem, a float in the chamber, gimbal ring connections, between the other end of the lever and the float, and adjusting means secured on the outside of the chamber adapted to vary the relation of the stem lever.

961,372. Motor Vehicle. Albert F. Rockwell, Bristol, Conn., assignor to The New

# Kelly-Springfield Auto Tires

Made by the Makers of the famous Kelly-Springfield solid tire



The  
Master  
Magneto!

TRUE HIGH TENSION TYPE

J. S. BRETZ COMPANY

SOLE IMPORTERS

TIMES BUILDING NEW YORK

Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 12, 1910. Serial No. 548,915.

1. In a motor vehicle, the combination with a frame, and an engine supported thereby, of traction wheels having movement toward and away from said frame, a fluid motor in driving connection with said traction wheels, a pump flexibly connected to said frame, inflexible piping rigidly connecting said pump and said motor, and

driving connection between said pump and said engine; substantially as described.

961,406. Reinforcing Truss for Motor Cars. Delamere B. Gardner, Chicago, Ill. Filed Dec. 6, 1909. Serial No. 531,652.

1. The combination in an automobile of a differential casing and a forwardly extending shaft bearing, with a separately formed truss member surrounding the differential casing and extending forwardly and secured to said shaft bearing.

# KLINE KAR

## New Series Model 6-40 Now Ready EVERY LIVE DEALER

owes it to himself to examine the KLINE-KAR and understand what it really is and what it represents.

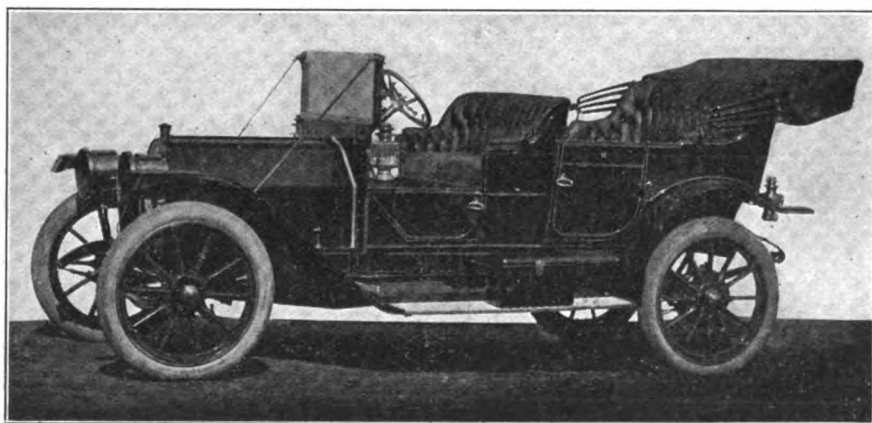
It is offered as the last word in present day automobile construction.

Avoiding extremes, the KLINE-KAR represents the ideal of the average buyer. At its price—\$2500—there is nothing that compares with it.

At any price the KLINE-KAR acknowledges no superior.

The man who knows most about motor cars best appreciates the KLINE-KAR.

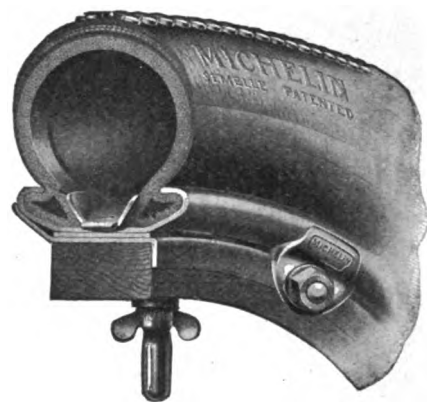
GET IN YOUR ORDERS FOR EARLY FALL BUSINESS



New Models, Optional With or Without Front Doors

**B C K MOTOR CAR CO., York, Pa.**

## Michelin DEMOUNTABLE RIM



*The Original Type*

**Simplest  
in Construction  
Lightest in Weight  
Easiest to Operate  
Absolutely Secure  
No Lugs  
nor Security Bolts**

**MICHELIN TIRE CO.  
Milltown, New Jersey**







## GARFORD PARTS FROM STUDEBAKER

**Increases Its Line and Handles Its Own Sales—Studebaker's Large Car to be Made in Detroit.**

After several years of close association, the Garford Co., Elyria, O., and the Studebaker Automobile Co., South Bend, Ind., have decided to go their separate ways. The decision was amicably reached and the parting gave no pain and left no ill will on either side.

The Garford company built the chassis of the Studebaker-Garford "40," the output of which was marketed by the Studebaker company, and the belief of the Garford people that their future welfare will be enhanced by having direction of the distribution of its product and knowledge of its ultimate handlers had not a little to do with the severance of the relations existing between the two companies. The Studebakers, it is understood, now will develop a 40 horsepower car in the E-M-F shops in Detroit, while the Garford company will greatly enlarge its line, and already has commenced to organize a sales department and agency system. One of its first moves in that direction was the selection of the Colt-Stratton Co., of New York, as metropolitan distributors. The company, of which W. L. Colt is general manager, is handling the Cole "30," which it was quick to give standing in the East, and will handle the Garford cars in connection with it, the while establishing a separate department for the Garford trucks. Mr. Colt was formerly president of the Cleveland Motor Car Co., whose cars were made in the Garford factory, and thus was brought into close acquaintance with A. L. Garford, president of the Garford company. Mr. Garford himself practically is one of the pioneers of the automobile industry. He has been identified with it for nine years, having built first the Berg and then successively the Cleveland, Rainier and Gar-

ford-Studebaker cars for the companies bearing those respective names.

Garford owns or controls 51 per cent. of the stock of the Garford Co., such shares as are held by the Studebaker interests being owned by individuals who will retain them at least for the time being.

The Garford company owns a fine large plant in Elyria to which it is adding another structure, affording 60,000 square feet of room in which steel bodies for its new cars will be made and the finishing work performed. This new Garford line will comprise a "30" at about \$2,500, an improved "40" at \$3,500, and a six cylinder "60" at \$4,500. In addition, there will be produced a full line of commercial vehicles—a 1,000 pounds delivery wagon and, in chassis only, one, two and three-ton trucks listing at respectively \$2,250, \$2,850 and \$3,250. As both cars and trucks and every part of them constitute a familiar and well learned story to the Garford people, they have neither a new factory to equip nor any experimenting to do, and hence will be able to enter the selling field and bid for agents under uncommon advantages.

### Chalmers Cuts a 1,000 per cent. Melon.

By declaring a stock dividend of 1,000 per cent., the Chalmers Motor Co., of Detroit, Mich., at the annual meeting of the stockholders, on Tuesday, 26th inst., raised its capitalization from \$300,000 to \$3,000,000, all of the increase going to stockholders as dividends in addition to a cash dividend of 30 per cent. that also was declared. With recent buildings and equipment, the company's investment in physical manufacturing property is over \$1,500,000, and the old capitalization of \$300,000 was regarded as disproportionately small to the actual value of the business.

### Dirnberger Becomes a Thomas Official.

M. F. Dirnberger, Jr., has been elected secretary and treasurer of the E. R. Thomas Motor Co., of Buffalo, N. Y. He is one of Buffalo's prominent attorneys and is well known in local business circles.

## MUST TELL TIRE TRADE SECRETS

**Bennett and Gilbert Defeated in their Resistance to Examination—Moto Bloc Pushes the Inquiry.**

In the first round of the fight of the Moto Bloc Import Co., of New York City, against the tire manufacturers who through the medium of the so-called Dealers' Protective Association are trying to curb price cutting on tires, the Moto Bloc company has proved the victor. Because of this fact it will be necessary for Joseph M. Gilbert, of the Continental Caoutchouc Co., and L. W. Bennett, the manager of the Dealers' Protective Association, to submit to an examination as to the inside workings of the association.

As explained at the time, Leon D. Kaufman, president of the Moto Bloc company, through his attorneys, Nims & Frazer, has employed that part of the New York code that permits what is known as the examination of a party before trial, in order that in bringing suit the complainant may have information necessary for him to draw his complaint in proper form. Kaufman contends that the Dealers' Protective Association, which is supported by tire makers, including Diamond, Hartford, Goodrich, Continental, Morgan & Wright, G & J and Fisk, is an illegal combination restraining trade, and that it is guilty of unfair black-listing methods in making lists of dealers to whom the tire companies shall not sell.

The examination which Kaufman has asked for is to endeavor to compel Gilbert and Bennett to disclose the exact nature of the Association and to reveal its minutes and other records and those of the tire companies who are fathering it. He also wants to know what agreement has been made by the manufacturers "acting in concert in a scheme to concentrate the business in the hands of a few dealers," and to find out who names the firms that are to get tires at wholesale prices and those who are



compelled to pay retail prices if they want to buy.

As president of the Moto Bloc company, Kaufman obtained an order from Justice Giegerich for the examination, but as a counter move Bennett and Gilbert applied to Supreme Court Justice Ford to have the order vacated, as improper. The matter was argued before Ford on July 6th, but it was not until the 22nd inst. that he gave his decision. Justice Ford has overruled Bennett and Gilbert in their motion, and the order for the examination still stands. The Moto Bloc company is endeavoring to have the examination set for August 2, but Judge Ford has not indicated whether or not it will take place on that date. A. H. Kasner, proprietor of a New York tire house which has been cut off from obtaining wholesale prices and who has taken steps to have the Federal Department of Justice prosecute the tire makers for restraint of trade, has announced his intention of having a representative at the examination, for the purpose of getting facts that will assist him in his retaliatory program.

#### National-Acme to Build New Factory.

The National Acme Mfg. Co., of Cleveland, O., manufacturing machine tools for the automobile industry, has made application for a permit to build a \$30,000 four story factory at Stanton avenue, southeast, and the C. & P. railway track. The factory will have 20,000 square feet of floor space.

#### Alpena Completes Its Organization.

The Alpena Motor Car Co., of Alpena, Mich., in which some Mt. Clemens money also is interested, has completed its organization and is to make a \$1,450 car styled the Alpena Flyer. The officers of the company are D. D. Hanover, president; William Krebs, vice-president, and W. B. Robertson, secretary and treasurer.

#### Stafford Moves to Larger Plant.

The Stafford Motor Car Co., of Kansas City, Mo., has moved from its old plant at 111 West Eighteenth street to the factory formerly occupied by the Kansas City Motor Car Co., at Sheffield. New machinery equipment to the extent of \$50,000 has been added.

#### Pulcher Leaves Oakland for Bailey.

Martin L. Pulcher has resigned as purchasing agent and secretary of the Oakland Motor Car Co., of Pontiac, Mich. He has become general manager of the Bailey Motor Truck Co. of Detroit, Mich.

#### City Carriage Takes up Automobiles.

The City Carriage Works, of Fort Wayne, Ind., has decided to engage in the manufacture of automobiles. Its output is to include trucks, delivery wagons, buses and ambulances.

## CROXTON-KEETON CREDITORS ACT

### Form a Committee to Straighten Out Its Affairs—Liabilities \$300,000—Seek to Avoid Forcible Liquidation.

At the request of a large majority of the creditors, the Croxton-Keeton Motor Co., of Massillon, O., has been placed in the hands of a creditors' committee, for reorganization, re-financing or liquidation of its affairs. The company owes more than \$300,000. The committee indicates that the assets may equal this amount provided they can be conserved as a going business, and that if it be possible to obtain only enough money to manufacture the goods for which parts already are on hand, the creditors might pull out something between 50 and 60 cents on the dollar. Forcible liquidation at present, it is estimated, would yield about a 10 per cent. dividend on the debts.

The committee which has undertaken to act for the creditors consists of: Isaac Kinsey, president of the Kinsey Mfg. Co., Toledo, O.; H. J. Mallory, Weston-Mott Co., Flint, Mich.; Christian Girl, president of the Perfection Spring Co., Cleveland, O.; L. A. Loichot, president of the First National Bank, Canton, O.; W. F. Ricks, cashier of the Merchants' National Bank, Massillon, O. The depository for claims is the Citizens' Savings and Trust Co., of Cleveland, O., while M. B. & H. H. Johnson, 1009 American Trust building, Cleveland, are the counsel for the committee.

### Conceal \$10 Damage by \$75,000 Fire.

To conceal the fact that their carelessness had resulted in about \$10 damage to a boiler tube, two employes of the Camden Motor Co.'s garage, in Camden, N. J., burned the garage and caused a loss estimated at \$75,000, according to charges brought against them by the Camden police. The fire, which took place on March 15th, consumed 29 automobiles as well as the building. Simon Spence, a negro, and Albert Hildreth, a white man, are the men who are accused, and after a hearing before the recorder they have been committed to jail in default of \$3,000 bail each. A detective testified that Spence told him they thought that burning the building would be the easiest way out of their difficulty and would save them from having to pay for the boiler tube.

### Bergdoll Begins Manufacturing Operations.

After an embryonic period of some months, the Louis J. Bergdoll Motor Co., of Philadelphia, Pa., has commenced active life and has taken possession of the new factory which has been built for it at 31st and Dauphin streets, where it will produce Bergdoll cars. The president and managing head of the concern, Louis J. Bergdoll,

a millionaire who has gained some fame in automobile circles as a race driver, has had the Philadelphia agency for a number of cars, and is familiar with the problems of the trade. E. C. Johnson, the vice-president, formerly was sales manager of the Packard branch in Philadelphia, and will handle the sales end. Charles A. Bergdoll is treasurer and Philip Malickson secretary. The latter will have general supervision of the mechanical and manufacturing side of the enterprise.

### Dow Heads an Electric Enterprise.

The Electric Truck Co., with Alexander Dow as president, has been formed in Detroit, Mich., not only to handle electric trucks of from one-half to five tons capacity, but also to provide a garage and operating system that will permit an economical use of electric commercial vehicles. The other officers of the company are S. M. Sheridan, vice-president; S. C. Mumford, treasurer, and J. W. Brennan, secretary and general manager.

### Studebaker Branch for Los Angeles.

A branch for Studebaker, E-M-F and Flanders cars is to be established in Los Angeles, Cal., by the Studebaker Automobile Co., of South Bend, Ind. Joseph Ollier, who has been representing the Flanders car in Los Angeles, will be the manager, and will handle the distribution for Southern California. A large warehouse will be erected for the branch.

### Detroit Office for Ohio Tube.

The Ohio Seamless Tube Co., of Shelby, O., making cold drawn seamless tubing, has opened an office in Detroit, Mich., for the purpose of better serving the Michigan automobile trade. The office is at 913 Ford building, and will be under the direction of Lloyd Brown.

### Brandt Goes with United States Motor.

E. H. Brandt, president and general manager of the Rambler Automobile Co. of New York, the metropolitan representatives of the Thomas B. Jeffery Co., of Kenosha, Wis., has resigned. He is to become identified with the United States Motor Co.

### Brady Sells Out Chalmers Interest.

James J. Brady, former second vice-president and factory head of the Chalmers Motor Co., of Detroit, Mich., has disposed of his holdings in the company to Hugh Chalmers, the president. Brady resigned from the company last February.

### Morse Buried at Wallingford.

G. W. Morse, president of the Parish & Bingham Co., of Cleveland, Ohio, who died in that city after a long period of illness, was buried in Wallingford, Conn., on Wednesday of last week. He had been in poor health for a year or more.

**SERVICE STATIONS IN SIX CITIES**

**Comprehensive Plan for Delivering Chalmers Replacement Parts within 24 Hours—For Dealers and Owners.**

Pointing to the recognition which manufacturers of cars are giving to the replacement and service-to-owners features of the business, the Chalmers Motor Co., of Detroit, Mich., is making ready to establish what are to be known as "auxiliary repair stations" in six of the most important cities of the country. These stations are an outgrowth of the "service department" which the company has established and which is under the direct supervision of C. C. Hildebrand, formerly sales manager of the Stevens-Duryea company, and now the assistant general manager of the Chalmers company.

The cities selected for the introduction of the plan include New York, Kansas City, Denver, Minneapolis, Atlanta and San Francisco. The stations will be in charge of representatives from the factory, and the object in their establishment is the supplying of repair parts within 24 hours of receiving the order. The plan does not involve the establishment of retail selling branches or the taking over of agencies from dealers at present handling the cars, but relates solely to the "service" or repair and replacement end of the business.

It is explained that the dealers throughout the country will continue to carry the same amount of repair parts for the company's cars that they now are carrying, but that the repair stations will supplement the dealers' repair stock, and that the repair stations will furnish such parts as the dealers do not ordinarily carry and which heretofore they have had to order from the factory. It is aimed to supply any dealer or owner with a needed part within a day's time. The speed idea also is to be carried out to the extent that all telegrams and special delivery letters to the stations will be replied to on the day they are received, and orders for repair parts at the factory have been given an imperative right of way over stock for the factory for building cars.

**Clevelanders to Build Motor Trucks**

The Cleveland Motor Truck Mfg. Co. has been formed in Cleveland, O., with \$250,000 capital, to build commercial vehicles embodying what is known as the McGeorge wheels, permitting driving and steering of both front and rear wheels. The wheel is patented by John McGeorge, of the Cleveland Engineering Co. The company proposes to make eight models of vehicle, four of which will be combination gasoline-electric, and the capacities are to range from 1,000 pounds to seven tons. The offi-

cers of the concern are H. W. Woodward, president; R. H. Sharp, vice-president and general manager; W. M. Hager, secretary, and A. W. Johnston, treasurer, all of Cleveland. These with Dr. Edwin Leonard, Jr., of New York City, constitute the board of directors.

**Nuckols Now Columbia's President.**

Henry M. Nuckols has been made president of the Columbia Motor Car Co., of Hartford, Conn., being advanced from the vice-presidency by a vote of the board of directors. At the time the receivers were appointed for the Electric Vehicle Co. he was secretary and treasurer of the company, and under the receivership was the active manager in addition to being one of the two receivers. Since the concern's reorganization as the Columbia Motor Car Co. and its acquirement by the United States Motor Co. he has been vice-president and general manager. In the new office he succeeds Herbert Lloyd, of Philadelphia.

**Goodrich to Add \$10,000,000 Capital.**

For the purpose of doubling the capital stock of the B. F. Goodrich Co., Akron, O., from \$10,000,000 to \$20,000,000, a special meeting of the stockholders has been called for August 24th. It is understood that half of the new \$10,000,000 issue is intended as a bonus to present stockholders in the form of stock dividend, while the remaining \$5,000,000 will be for subsequent sale. The proceeds of the latter will be used to pay for additions that are being made and others that are contemplated, and to provide ready cash capital so that borrowing will be unnecessary.

**Hollander is Arrested in Naples.**

After having fled the country by reason of the discovery that he had been defrauding the United States government in connection with his brokerage services in importing automobiles, Alexander Hollander, head of the customs brokerage firm of Alexander Hollander & Co., New York City, was arrested in Naples on the 20th inst. His scheme was to shave differences in duties by submitting false invoices and certificates of appraisement.

**Argo Will Build Electrics in Saginaw.**

Saginaw, Mich., is to have a manufactory of electric automobiles, the Argo Electric Vehicle Co. having been formed in that city, incorporated with \$200,000 capitalization. The company will occupy a factory which is to be vacated by the Sommers Match Co. The principal stockholders are Theodore Huss, Fred Buck, Benton Hatchett and Otto Shupp, of Saginaw, and A. M. Marshall, of Duluth.

**Goodyear Opens a Seattle Branch.**

The Goodyear Tire & Rubber Co., of Akron, Ohio, has opened a branch in Seattle, Wash. It is located at 1532 Broadway.

**NEW CHASSIS IN MAXWELL'S LINE**

**Models Offer a Range from \$600 to \$1,600  
—Torpedos Providing for Two, Four  
or Six Passengers.**

With its line considerably amplified in the way of bodies and with one new chassis introduced to extend its scope, the Maxwell-Briscoe Motor Co., Tarrytown, N. Y., by the announcement of its new models, added one more name to the list of manufacturers who have espoused the torpedo style of carriagework and also the rationalized type of touring body which is now furnished with doors to both front and rear seats. The new line will comprise two passenger runabouts in prices ranging from \$600 to \$900, touring cars from \$1,100 to \$1,575, and torpedos with straight line effects and arranged to seat two, four and five passengers, which range in price from \$1,100 to \$1,600.

The new chassis model will be of 25 horsepower rating, with a four-cylinder engine of 4x4 inch dimensions. It is designated as Model "I," and equipped as a touring car with four door body is listed at \$1,100, and is a very attractive offering in its class. The other chassis, in order of power rating, are the 14 horsepower two-cylinder opposed, and the 22 and 30 horsepower models, the latter having 4 1/4 x 4 1/4 inch cylinders.

Models "E-A" and "G-A," the latter in both touring car and roadster forms, are the cars which are presented in torpedo form. They are equipped with the 30 horsepower motor and sell for \$1,600 each. The roadster is equipped with demountable rims and extra tire carriers and with a gas tank mounted on the rear deck between the seats. The four passenger detachable tonneau touring car, known as model "G-II," also a 30 horsepower model, is effectively drawn to secure the straight line effect and is listed at \$1,575. The five passenger touring car "E-II" sells for \$1,500. The "Q-II" model, so-called, may be had either as a runabout for two persons, or with rumble or surrey seat additions. As a runabout it sells for \$900.

In revising the body designs for the new series of cars a new color scheme has been adopted in addition to numerous minor features of a utilitarian nature. The new Maxwells, therefore, will be distinguished by dark blue bodies and cream running gear, with options on the shade of blue in the "Q-II" models and of dark red in the case of the 30 horsepower four passenger detachable tonneau touring car. As was the case with their predecessors, all new models will be equipped with magneto ignition in addition to other desirable fittings. The "perfected Maxwell chassis" is of uniform design in most respects.

## THE WEEK'S INCORPORATIONS.

Jackson, Ohio—Jackson Spoke and Rim Co., under Ohio laws, with \$3,000 capital. Corporators—John Robbins and others.

Chicago, Ill.—Atlas Auto Supply Co., under Illinois laws, with \$4,000 capital. Corporators—James Flett, E. R. Styles and others.

Victoria, Tex.—Overland Garage Co., under Texas laws, with \$3,000 capital. Corporators—John Welder, Jr., R. H. Welder, Paul Plummer.

Canton, Ohio—Diebold Motor Car Co., under Ohio laws, with \$20,000; to deal in automobiles. Corporators—R. J. Diebold, W. R. Myers, D. L. Quinn.

Louisville, Ky.—Broadway Auto Co., under Kentucky laws, with \$10,000 capital. Corporators—Owen S. Mottler, Edward Haag and Walter E. Huffaker.

Enid, Okla.—Thomas Motor Car Polish Co., under Oklahoma laws, with \$1,000 capital. Corporators—F. J. Gentry, William French, R. W. and M. L. Thomas.

Kansas City, Mo.—Chalmers Motor Co., under Missouri laws, with \$25,000 capital; to deal in automobiles. Corporators—John A. Nelson, W. S. Keeler, John Pirie.

Chicago, Ill.—Atlas Auto Supply Co., under Illinois laws, with \$2,500 capital; to deal in automobile supplies. Corporators—J. S. Day, H. L. Page, G. Hamburger.

Marion, Ind.—Fudge Bros. Mfg. Co., under Indiana laws, with \$25,000 capital; to manufacture automobile tires. Corporators—John W., Leroy M. and Lewis M. Fudge.

St. Louis, Mo.—Lane-Lynch Motor Co., under Missouri laws, with \$15,000 capital; to deal in automobiles. Corporators—Harry P. Lynch, John A. Johansen, Geo. E. Lane.

Mansfield, Ohio—Forth Motor Car Co., under Ohio laws, with \$200,000 capital. Corporators—C. T. Ashbrook, W. M. Hahn, C. Hoffman, S. J. Colwell and W. H. Shryock.

Cleveland, Ohio—Hupp Motor Sales Co., under Ohio laws, with \$15,000 capital. Corporators—James A. Farrell, W. J. Coughlin, Thomas Coughlin, A. C. Waid and W. J. Dawley.

Fitchburg, Mass.—Bickford Auto Co., under Massachusetts laws, with \$10,000 capital; taxicab and automobile business. Corporators—O. E. Bickford, R. D. Lyon and E. C. Ford.

Oshkosh, Wis.—McKone Motor & Tire Repair Co., under Wisconsin laws, with \$10,000 capital; to operate a garage. Corporators—L. J. McKone, H. J. Ziebell, R. G. Johnson.

Chicago, Ill.—Lake View Garage Co., under Illinois laws, with \$10,000 capital; general automobile business. Corporators—John W. Benfield, Felix C. Hartung and A. H. Barrett.

Middletown, N. Y.—Micks-Wilkin Transmission Co., under New York laws, with \$5,000 capital; to deal in automobiles, etc. Corporators—W. W. Micks, J. A. Wilkin, John G. Heinle.

Chicago, Ill.—Auto Renewal Co., under Illinois laws, with \$2,500 capital; to manufacture automobiles and parts for same. Corporators—J. S. McClellan, Leo Klein, Jerome J. Cermak.

Louisville, Ky.—Kentucky Automobile College, under Kentucky laws, with \$5,000 capital. Corporators—Charles H. and Jesse Gant, Samuel and Nellie Glick, Clarence F. Ott and A. S. Beyer.

Chicago, Ill.—Peerless Motor Car Co., under Illinois laws, with \$60,000 capital; to do general manufacturing and contracting business. Corporators—Louis H. Hart, J. Smith, D. T. McNabb.

Memphis, Tenn.—E-M-F Memphis Co., under Tennessee laws with \$25,000 capital. Corporators—Walter E. Flanders, Robert M. Brownson, B. W. Twyman, Ernest L. Jacoby and Paul Smith.

Edgewater, N. J.—Guarantee Rubber Tire Co., under New Jersey laws, with \$10,000 capital; to manufacture automobile tires, etc. Corporators—E. J. Forhan, H. F. Martin and H. P. Hones.

Providence, R. I.—Union Motor Car Co. of Rhode Island, under Rhode Island laws, with \$10,000 capital; general automobile business. Corporators—Rogers Case, Willard Sweet and Abbot Phillips.

Chicago, Ill.—American Automobile Stuffing Box Co., under Illinois laws with \$100,000 capital; stuffing boxes and packing. Corporators—Calvin and Nellie Tichenor, Edward M. Baldwin.

Leominster, Mass.—Leominster Garage and Auto Co., under Massachusetts laws, with \$5,000 capital; to do general garage business. Corporators—L. M. Stutz, M. Falk, Bessie Falk, J. W. Healey.

Meridian, Miss.—Meridian Auto Co., under Mississippi laws, with \$10,000 capital; general automobile business. Corporators—Sam Meyer, J. T. Russell, Walter G. Hodges, J. W. Bostick and others.

Oklahoma City, Okla.—E. M. F. Oklahoma City Co., under Oklahoma laws, with \$25,000 capital; to deal in automobiles and supplies. Corporators—Chas. M. Barber, W. E. Flanders, R. E. Brownson.

Newark, N. J.—Simplex Sales Co., under New Jersey laws, with \$10,000 capital; to manufacture automobiles, etc. Corporators—George B. Riley, Jersey City; Moses Ritter, Rahway; E. R. Holmes, Newark.

Cleveland, Ohio—J. R. Whiting Auto Sales Co., under Ohio laws, with \$10,000 capital; to deal in automobiles. Corporators—J. R. Whiting, W. C. Sell, F. Irene Burke, C. J. Burke, W. H. Kemmerling.

Omaha, Neb.—Omaha Motor Car Co. under Nebraska laws, with \$200,000 capital;

to manufacture and sell automobiles. Corporators—G. H. Downs, W. S. Stryker, H. M. Rigley, W. G. Wallace, R. M. Homan.

Oklahoma City, Okla.—Farmers' Motor Wagon & Plow Co., under Oklahoma laws, with \$100,000 capital; to manufacture industrial motor vehicles. Corporators—Colfax Molton, F. B. Johnson, H. D. East.

Chicago, Ill.—White Motor Car Co., under Illinois laws, with \$100,000 capital; to deal in automobiles, supplies, parts and kindred articles. Corporators—James E. Plew, Robert M. Cutting and Charles W. Luttrell.

Newark, N. J.—Commercial Maintenance & Motor Co., under New Jersey laws, with \$100,000 capital; to operate and rent automobiles and do general garage work. Corporators—R. O'Gorman, S. A. Halsey, G. D. O'Gorman.

New York City, N. Y.—Lafayette Mfg. Co., under New York laws, with \$30,000 capital; to manufacture trunks and appliances for automobiles and bicycles. Corporators—George M. Shotwell, Bernard A. Alperin, B. Gleason.

Lewiston, Me.—Combination Tail Light and Illuminated Automobile Number Corporation, under Maine laws, with \$150,000 capital; to manufacture and sell patented automobile tail lights and other appliances. Corporator—J. A. Patron.

Charleston, W. Va.—Kanawha Auto Cab Co., under West Virginia laws, with \$5,000 capital; to operate automobiles for hire. Corporators—William T. George, J. B. Dilworth, Philippi; William B. Mathews, C. E. Robinson, F. C. Major, Charleston.

## Kelsey to Make Three-Wheel Cars.

The C. W. Kelsey Mfg. Co., of Hartford, Conn., organized by C. W. Kelsey, formerly of the Maxwell-Briscoe Motor Co., and which had planned to make the Spartan car, is to turn to the manufacture of a small three-wheel car which is to be known as the Motorette, and which, according to Kelsey, "comes between an automobile and a motorcycle, and may be called the ultra-refinement of the motorcycle." It is to sell for about \$330 and will seat two persons, side by side. The company has completed its organization and has leased a factory on Market street, formerly occupied by the Cheney Brothers, silk manufacturers. It has a capitalization of \$250,000, and is headed by Kelsey as president. The vice-president is W. D. Disston, of the firm of Disston & Sons, Philadelphia, manufacturers of saws. G. M. Robinson, of New York City, is secretary, and M. Kelsey treasurer. F. S. Hyatt, who recently resigned as purchasing agent of the Columbia Motor Car Co., is purchasing agent of the new company, and G. F. Kuhn, who was an engineer for the Maxwell-Briscoe company, is the engineer and factory manager of the concern.

## IN THE RETAIL WORLD.

R. J. Thompson, of Waterloo, Ia., has opened a repair and supply business in his home town. He will specialize in vulcanizing and painting.

William Gabler is building a two story garage in Philadelphia, Pa., at the corner of 27th and Sergeant streets. The building will be 20 x 90 feet and cost \$4,000.

W. C. Marsh, manager of the American Motor Co., Boston, Mass., has secured the agency for the Paige-Detroit roadster. He will exhibit it at 173 Huntington avenue.

The garage business of Thorpe & Wood, Darien, Wis., has been dissolved. E. H. Wood bought out the interest of his partner and will continue the business alone.

Under the style the Frank Fleckling Automobile Supply Co. a new accessory house has been established in Washington, D. C. It will be located at 1112 14th street, northwest.

Frank Jungjohann has retired from the Iowa Auto & Tire Co., Davenport, Ia., which leaves the present firm composed of from the main stock-in-trade of the concern.

A. R. Carney, F. Richardson and J. H. Crosett are the owners of a new garage which is in the course of erection at Exeter, Cal. The building is of reinforced concrete.

A. M. Phillips and others are interested in a new garage which is being built on Princess street, St. John, N. B. The structure will be 103 x 42 feet, of brick and two stories high.

Jesse S. Draper, who has been acting as manager for the New York branch of the Mora company, of Newark, N. J., has resigned. He will take up the sale of Hudson cars in the metropolitan district.

The Mercer County Automobile Co. is the name of a new concern which has opened up in Bluefield, W. Va. General garage and repair work is to be done by the company at its garage in Bluefield avenue.

Eric J. Gustafson just has opened a garage and repair shop in the old church on Court street, Rockford, Ill., which has been rebuilt for this purpose. The new garage has cement floors and will afford room enough for a dozen cars.

The Excelsior Garage at Kokomo, Ind., was destroyed by fire on Monday last, and damage of over \$3,000 resulted. The flames were started by the breaking off of a burner on the brazier, which was being operated in the basement of the garage.

Fire starting from crossed electric wires last week destroyed the garages of the Gotschalk Motor Car Co. and the Spaulding Automobile Co., in Aberdeen, S. D. The damage is estimated at over \$75,000, with only a nominal insurance.

R. W. and F. W. Northcutt, agents for Hudson and Chalmers cars in Atlanta, Ga., have joined forces with John E. Smith, the agent for the Pierce-Arrow Co., under the style Northcutt, Smith & Co. Their new salesrooms will be located at 116 Auburn avenue.

The Newberry Auto Livery Co. is the style of a new concern which has opened a garage and renting department in Chicago, Ill. The new structure, built especially for them, measures 81 x 98 feet and cost \$15,000. It is located on Paulina street, near 12th street.

John C. Donohue, contractor and owner of the Jefferson Market and Auditorium building, Perth Amboy, N. J., has organized the Central Jersey Garage, and will manage it himself. The new business is to be established in his market building on New Brunswick avenue.

The Babcock Garage, located at 6404-18 Euclid avenue, Cleveland, Ohio, has been leased by the Western Reserve Motor Co., agents for the Pierce-Arrow, Everitt "30" and Hewitt trucks. C. J. Whipple, the manager of the Western Reserve company, has taken over the agency for the Babcock electrics.

The Overland Auto Co., of 1516 Broadway, Denver, Col., has opened up an additional and much larger salesroom at 1547 Lincoln street, where it will display Winton, Apperson, Overland and Marion cars. The old salesroom henceforth will be devoted exclusively to the sale of Baker electrics, which also are handled by this company.

The Thomas Automobile Co., the Winton agents in Louisville, Ky., have leased the garage building at Second and Guthrie streets and are making extensive alterations. The Thomas company's former location at 916 Third street has been taken by the Radcliff Motor Car Co., which recently was organized to handle the Stevens-Duryea.

Louisville, Ky., has added another garage and salesroom to its "automobile row" on Third avenue. The Yager Motor Car Co. is the name of the newcomer, and it will occupy the new brick and reinforced concrete structure between Breckenbridge and Kentucky streets. Peerless, Pierce-Racine and Columbus electric cars are handled by the concern, of which R. T. Yager is manager.

The garage business of the Cook & Stoddard Co., of 22nd and P streets, northwest, Washington, D. C., has been purchased by J. J. Bartram, who previously bought the Atlas garage at 1206 New Hampshire avenue, northwest. The building at 22nd and P streets will be turned into a riding academy. The Cook & Stoddard Co. intends to continue in the sales business and has taken new quarters on H street.

The firm of Hunter & Osen, San Fran-

cisco, Cal., has been reorganized. A. E. Hunter takes over the retail end of the Mitchell business in San Francisco under the style the A. E. Hunter Auto Co., while the old firm, under the name Osen & Hunter Auto Co., takes entire charge of the wholesale part. O. C. McFarland will be at the head of the wholesale department in which Hunter still retains his controlling interest.

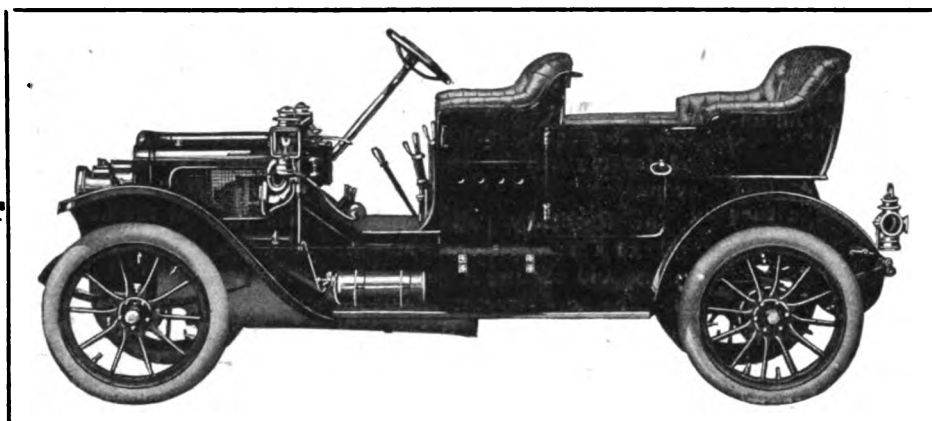
The Great Northern Implement Co., Minneapolis, Minn., whose display room and offices burned down two months ago, will erect a new seven-story structure on the site of the old building, at Third street and Seventh avenue south, taking in addition the site of the Rock Island Implement Co.'s warehouse, which was destroyed in the same fire. The new structure will be 154 x 120 feet, of reinforced concrete, and is to be made strictly fireproof.

Heralded as the "finest electric garage in the world," the Bartlett Garages, Inc., with 2¼ acres of floor space, soon will be ready for business on Market street, Philadelphia, Pa. The structure covers a plot 180 x 220 feet, fronts on four streets, and will accommodate more than 200 cars. The upper floors will be occupied by a number of accessories and supplies stores, while in the part of the ground floor facing on Market street electric vehicles will be exhibited.

A petition in voluntary bankruptcy has been filed by Charles R. McClellan, a distributor of automobiles, 1777 Broadway, New York City, with liabilities \$1,686 and nominal assets \$2,225, consisting chiefly of 20 shares of stock in the Monitor Automobile Co., of Janesville, Wis., which concern is a creditor for \$960. Dwight Holbrook, of Hartford, Conn., with a claim for \$162, and George R. McClellan, of Burnside, Conn., \$250, are among ten other creditors named.

Threatening for a time to destroy the entire "automobile row" in Portland, Ore., a conflagration swept over a large area of the city, causing nearly half a million dollars damage. Among the losers were the Brush Auto Co., with \$12,000 and no insurance; the United Carriage Co., with \$15,000, partly covered by insurance, and the Fashion Stables and Garage, with \$20,000 and no insurance. The fire which razed seven city blocks is said to have started in the Fashion Stables garage.

Said to be the best lighted garage in the country, the new Philadelphia home of the Winton Six, just has been opened for business, at 246 North Broad street. The structure is fireproof, with a main show room 38 x 75 feet, a garage 78 x 110 feet, and a repair shop 40 x 80 feet. Scarcely any wood is used in the building. The entire front of the structure is of plate glass, with metal sashes, steel lockers for the employees, baths, retiring rooms and many other conveniences are provided on the second floor. Nernst electric lamps are used at night.



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CLEVELAND, OHIO





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### The A. A. A. and Its Backbone.

On its abundant and repeated proof that it at last possesses a backbone—a real one—The Motor World felicitates the American Automobile Association. It was a long time acquiring it, but it is such a bully backbone that many sins of the jellyfish days of the A. A. A. can be forgiven. The organization finally has found the way to deserve respect and to command it.

### The Effects of "Forcing the Season."

Despite conservative efforts to stamp out the practice of conducting the industry along the lines of a season business it is apparent that but little headway has been made. Any producer who leans as hard upon the efforts of his publicity man as does the average automobile builder is strongly inclined to make capital of the smallest item which is capable of construction to his seeming advantage. So while a number of manufacturers have ceased to

rate their models by years, and while the tendency of the market has been to break down the barrier which season designations erect, the general trend of newspaper comment and of a large proportion of the automobile advertising matter has fostered the idea that cars are built and sold in yearly allotments.

This sentiment naturally must be a sore affliction on the dealer, and it is something of an imposition on the public. The motorist who buys a "1910" car in the middle of June or July and learns a week or two later that by waiting a fortnight he might have had a "1911" car of the same make, which, he reads, has more power, or an improved body, or more and better features than the car he actually bought, is apt to feel that he has been "stung," and not wholly without reason. His feelings are not likely to increase his regard for the manufacturer or dealer who sold him an out-of-date or less valuable car. The dealer who happens to have one or more cars of the previous model on hand when the new series arrives also suffers. He either must take advantage of uninformed purchasers or dispose of the cars by sacrificing some of his profit by a direct cut in price or by offering some no less appealing and effectual form of inducement to the purchaser.

The broad effect of the system is to promote ill will and bad feeling and to condense the buying of cars into a few months, to create a selling season. To fill orders which come in with a season rush, factories must be operated months in advance of delivery, and manufacturers of parts and equipment and others who supply them must speculate on quantity and the taste of the public in the matter of styles and content themselves with long credits or heavy capitalization on the output, or else resort must be had to overtime. Banking institutions thrive on such policies and the building and machinery trades enjoy some benefit from them, since they necessitate the building of huge factories and warehouses.

But the industry as a whole must be the loser under such circumstances, and the vague attempts which have been made to eliminate the nominal season effects, but which really have resulted only in advancing the selling season for certain makers and generally confusing the public as to its calendar, have not been sufficiently concerted to bring about the desired results.

If it be held that competition requires that announcements of new models be made in mid-summer, the sooner its full consequences are realized, the better it will be for all concerned. For the most lasting and most general best results it were better that all announcements of new goods be withheld until September, at least.

### The Tables Turned on New Jersey.

As August 1st approaches, wailing and gnashing of teeth is increasing in the state of New Jersey. For on that day the new law in New York goes into effect and the motorists of the Mosquito State are beginning to realize that there soon will be something akin to real substance in the old joke regarding New Jersey being a foreign country. After August 1st, it matters not in which direction they may turn, they will be treated as "outlanders;" they must "stand and deliver" before they dare cross their state lines. The New York law closes their last avenue of escape. It completes their "marooning."

However abhorrent may be the idea that freedom of travel between states comprising one nation should be a matter of barter and sale or reciprocity, the fact that long delayed retributive justice finally has overtaken New Jersey is affording a sense of keen satisfaction that almost is universal; it is shared even by some of the liberal-minded Jerseymen who have opposed the miserable "hold-up" system instituted by Senator "Joe" Frelinghuysen. Due to his fine scruples and adroit tactics, New Jersey for some years has played the part of highwayman and "held up" every stranger that sought to enter its gates; therefore the wails arising there awake no sympathy whatsoever. His constituents now are about to reap the full fruits of Frelinghuysenism, as the Motor World so often predicted would be the case, and it is such bitter fruit that if it does not serve to make them turn on the author of their discomfiture they will deserve all that he has handed or may hand to them.

The "auto editor" of a New York afternoon paper who draws \$75 per month from the treasury of New Jersey, and who tries hard to prove himself worthy of his hire, has announced that he is endeavoring to have New Jersey's Commissioner of Motor Vehicles come to New York and point out the beauties of the New Jersey hold-up system and thus convince New Yorkers of its wise, benevolent and brotherly charac-

ter. But the commissioner best had remain in Trenton. The beauties of the system are so apparent that any effort to paint them in other than their true colors can but excite horse laughs. In Trenton, the commissioner can continue to throw out threats and thus serve to induce the states that are an integral part of the union to "pile the agony" on any wandering Jerseyman who may come within their grasp. These threats may serve to keep "Carpet-bag Joe" in the background and to becloud his responsibility in the matter, but they will not help his constituents, who, if they are wise, will force "Joe" into the open. His candidacy for the gubernatorial nomination of New Jersey has been formally launched, and the outraged New Jerseymen should welcome, with stuffed clubs, the opportunity it suggests. "Joe" richly has earned the right to spend even more of his time in his insurance office and in his home in New York. The citizens of New Jersey ought to make it unnecessary for him to spend any time packing his carpetbag for his annual visit to Trenton during the legislative session there.

In viewing the present situation and their present discomfiture, no New Jersey motorist should permit "Joe" to escape their thoughts and their resolutions.

#### Windshields and Their Effects.

One hopeful opportunity that presents itself in connection with the observed tendency of manufacturers to increase the amount of standard equipment for their products is that of adapting such equipment absolutely to fit the needs of each style and size of car produced. The idea is suggested by the record elsewhere in this issue of tests recently carried out abroad which reveal the need of care in selecting the form and location of the wind shield. With so many different forms of shield on the market, the temptation is to select a pattern that harmonizes with the design of the car and that is not disproportionately expensive. In the production of a well thought-out car, however, the scrupulous manufacturer will not be content to choose his equipment on a superficial basis. It will be required to meet every possible demand of service.

It has been shown that an ill-chosen pattern of wind shield may utterly defeat its purpose by causing a severe back draught on the occupants of the front seat, while cutting off the front draught which after all

## COMING EVENTS

July 28-29, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Club third annual interclub reliability team match.

July 30, Salt Lake City, Utah—Salt Lake "Telegram's" third annual hill climb.

July 30, Wildwood, N. J.—North Wildwood Automobile Club's race meet on Wildwood Speedway.

August 1, Minneapolis, Minn.—Minneapolis Automobile Club's reliability run.

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 9-10, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

August 11, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 13, New York City—Motor Racing Association's matinee at Brighton Beach track.

August 15—Start of second annual Munsey Historical Tour from Philadelphia, ending at Washington, D. C., 1,700 miles.

August 19-20, Brighton Beach, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race meet.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

might be far less unpleasant to withstand. That the height of the shield, its angle and its position relative to the seats, as well as whether one or two shields shall be employed are questions depending very largely upon the form of the car body, is a conclusion which shows the importance of exercising proper discretion in selecting the equipment. Apparently, to do the product full justice, the cautious builder would be warranted in going about the choice of equipment as systematically as he does about the selection of such components as he elects to buy from the parts maker.

Motors, axles, gearsets, bearings and such auxiliaries as carburetters, ignition and lubrication devices are not determined upon until the field has been canvassed very thoroughly and the relative suitability of a

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

August 31-September 8, Kansas City, Mo.—Automobile Club of Kansas City's reliability contest.

September 2, 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 3, Wildwood, N. J.—North Wildwood Automobile Club's reliability run to Philadelphia.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 15 and 17, Lowell, Mass.—Lowell Automobile Club's road races.

September 17, Norristown, Pa.—Norristown Automobile Club's race meet.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint racemeet at Fair Grounds track.

large number of sample devices or systems ascertained by test. In the matter of equipment it is much easier to choose on a basis of cost and appearance than to go into the matter of serviceability as thoroughly as is necessary where actual running conditions are at stake. But the manufacturer who takes pains to secure harmonious results and to forestall dissatisfaction of even the most trifling nature by setting an equally high standard in mechanism and equipment is destined to reap the full benefit of his extra efforts. And should the time come when practically all cars are sold fully equipped, it would be of no small advantage to the salesman to be able to show that in including the accessories in the original sale something more had been done than to clip the wings of the retailer.

### THRILLS AT BRIGHTON MATINEE

**Robertson Wins the Hour Race—Defeats DePalma—Bragg Smashes a Fence on His Way to Victory.**

George Robertson and his Simplex racing machines proved an unbeatable combination at the Motor Racing Association's matinee at Brighton Beach track, New York, on Saturday afternoon last, 23rd

Anticipating tire trouble it was agreed that should such mishap occur in the first heat the heat would be restarted. This foresight proved well founded, for it was necessary to send the men away three times for the first five miles heat, both Robertson and DePalma suffering blowouts in the first and second sendoffs. Having won the toss, DePalma was on the pole and elected that the start be a standing one. He was first away on the break, and opened up a lead of 20 yards in the first lap, which Robert-

mediately thereafter DePalma slowed appreciably and pointed to his tires, which were worn down to the canvas; he declined further to tempt fate, but Robertson continued and finished with a flat tire, 100 yards in the lead. His time was 4:41 $\frac{3}{4}$ . DePalma protested the awarding of the heat to Robertson on the ground that his (DePalma's) tires were unsafe to continue, but the referee disallowed the protest, pointing out that whatever their external appearance they held air throughout.

So destructive to tires were the newly cemented turns that it was decided to cut the second heat to two miles. Again DePalma got away first and stayed in front for the first lap. Robertson was at his heels and after several unsuccessful attempts to pass, finally did so on the upper turn, when DePalma made an error of judgment and ran wide, Robertson cutting in on the pole. On the backstretch Robertson drew ahead and won by 50 yards in 1:49 $\frac{4}{5}$ . He drove the second mile in 51 $\frac{4}{5}$  seconds, a new record for the track.

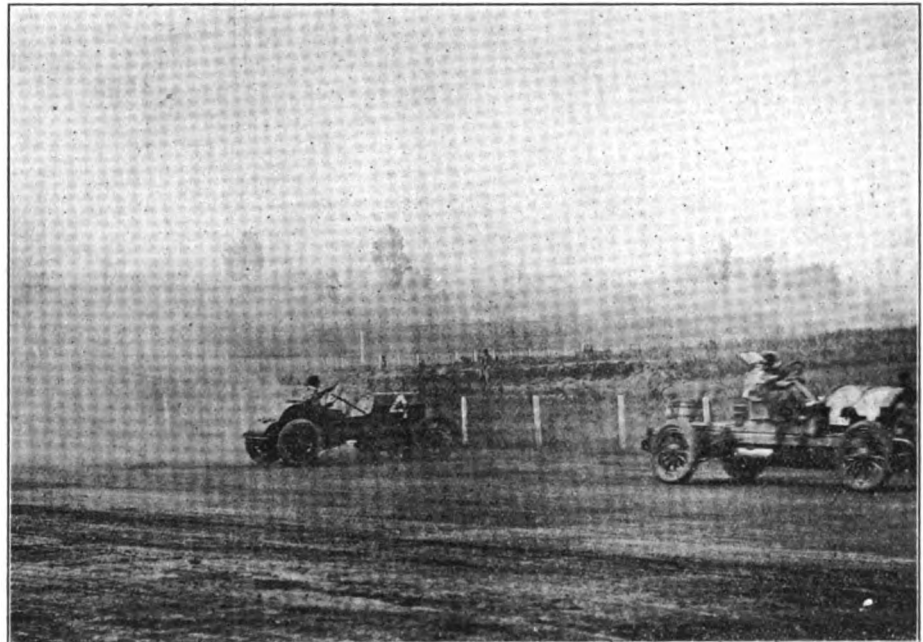
Although he had an abundance of speed and was able to run away from his rivals at will, Robertson only managed to win the hour race by a close margin on account of a stop for tires. Eight started, the race being open to all contestants in previous 24 hour races at the track. Robertson went to the front in the first mile and stayed there for 33 laps, with the rest of the bunch trailing and fighting among themselves for position. In the 33rd mile a flat tire sent the Simplex to the paddock, and when he returned to the grind, Robertson was in



"AMATEUR" BRAGG AND "PROFS." DE PALMA AND ROBERTSON

inst.; they captured the two stellar events—the match with DePalma and the hour race. More than 10,000 spectators saw the performance. While Robertson was the headliner of the afternoon, Caleb Bragg, the A. A. A. "amateur," also won two events, and, incidentally, qualified as a fence smasher of the first order. Bragg accounted for the amateur event after a sensational dive through the fence and an equally breath taking return to the track, and topped off this bit of acrobatic work by winning the 10 miles free-for-all, thereby robbing the declared "pros" of the fattest purse. DePalma partially retrieved himself for his defeat in the match by leading Robertson under the wire in the 10 miles event for cars in the 451-600 displacement division.

Although Robertson apparently demonstrated his superiority over DePalma in decisive fashion by winning the \$500 match in straight heats, the result by no means settles the question as to who is the better man, for there were some extenuating circumstances. Tire trouble was one of them and another was the disparity between the two cars, the Simplex being rated at 90 horsepower while the Fiat Cyclone mounts a 60 engine. Both cars have the steering posts on the left side, being the first racing cars so fitted.



BRAGG CHARGING THE FENCE IN THE FREE-FOR-ALL

son cut in half the second time around. The third circuit saw DePalma widening the gap again, but it was not for long, for the Simplex took on added speed and Robertson passed his rival in the fourth mile. Im-

mediately thereafter DePalma slowed appreciably and pointed to his tires, which were worn down to the canvas; he declined further to tempt fate, but Robertson continued and finished with a flat tire, 100 yards in the lead. His time was 4:41 $\frac{3}{4}$ . DePalma protested the awarding of the heat to Robertson on the ground that his (DePalma's) tires were unsafe to continue, but the referee disallowed the protest, pointing out that whatever their external appearance they held air throughout.

maining runaway, was nabbed at 45 miles, and Robertson then led the procession to the finish, reeling off 53 miles in the hour.

Giving away handicaps up to 55 seconds and tarrying long enough to mow down a few fence rails in the infield, Bragg, in the Fiat, put up a whirlwind exhibition in the five miles handicap, and won by several lengths in the fast time of 4:46½. The unscheduled and heart-stopping performance occurred in the second mile, when Bragg, who was last, was coming into the stretch from the notorious "Death Turn." Without warning the Fiat skidded into the inner fence and broke through into the infield. With superb coolness and presence of mind, when Bragg found himself in the enclosure and the car still in commission, he deliberately smashed his way back onto the track and went in hot pursuit of the field. He was given a great ovation when he passed the stand, and steadily mowed down the long markers, overhauling the last man in the fifth mile. Doig, Simplex, was second.

DePalma in the Cyclone "had it on" Robertson in the little Simplex in the 10 miles event, 451-600 class, and won handily. Disbrow in the Knox was third. Time, 10:00¾. Leo Anderson, Midland, also did a bit of fence breaking in the 10 miles for cars with 301-450 cubic inches displacement, and continued in the race, which was won by Beardsley, Buick; Lorimer, Chalmers, was second, and Anderson third. Time, 10:05¾.

The summaries:

Ten miles, under 160 cubic inches—Won by C. B. Derby, Hupmobile; second, A. C. Dam, Hupmobile. Time, 13:55¾.

Ten miles, 161-230 cubic inches—Won by W. H. Endicott, Cole; second, H. A. Neeley, Paterson. Time, 12:32¾.

Ten miles, 231-300 cubic inches—Won by L. A. Disbrow, Marion; second, Spencer Wishart, S. P. O.; third, J. Juhasz, S. P. O. Time, 10:55¾.

Ten miles, 301-450 cubic inches—Won by R. E. Beardsley, Buick; second, Lee Lorimer, Chalmers; third, Leo Anderson, Midland. Time, 10:05¾.

Five miles handicap, amateur—Won by Caleb Bragg, Fiat (scratch); second, James Doig, Simplex (15 seconds). Time, 4:46¾.

Ten miles, 451-600 cubic inches—Won by Ralph DePalma, Fiat; second, George Robertson, Simplex; third, Louis Disbrow, Knox. Time, 10:00¾.

Ten miles, free-for-all—Won by Caleb Bragg, Fiat; second, Louis Disbrow, Knox; third, Leo Anderson, Midland. Time, 10:09¾.

Special match, Robertson, Simplex, vs. DePalma, Fiat—First heat, five miles—Won by Robertson. Time, 4:41¾. Second heat, two miles—Won by Robertson. Time, 1:49¾.

One hour race—Won by Robertson, Simplex, 53 miles; second, Louis Disbrow, Marion, 52¾ miles; third, Harry Cobe, Palmer-Singer, 52 miles.

## APPLYING NEW YORK'S NEW LAW

**Koenig Gets Enough to do—Can't Deliver All Number Plates—Buys a Car for "Road Tests."**

Although Samuel S. Koenig, New York's Secretary of State, has been greatly perturbed because automobile owners and chauffeurs were not filing their applications under the new law in sufficient numbers to please him, Koenig has had more than enough during the past week to keep him busy. The applications have overwhelmed even the increased force in the automobile bureau in Albany, and not even night work has served to reduce the volume.

But while Samuel has been complaining of the tardiness of owners and chauffeurs, it transpires that he himself has been so remiss that it is extremely improbable that all of those who sent their registration fees will receive their number plates in season for use on August 1st, when the new law goes into effect. Koenig admits as much, and intimates that the police will have to "go easy" for a while. The number plates have been slow in coming through, nor are they things of beauty. They consist of white enameled figures riveted to a plate of blued steel, and they are being distributed on a hit and miss plan. Owners who sent their money to Albany a month or more ago have not yet received their plates, while others who did so but recently already are in possession of theirs. The first few lots were delivered to the owners, but this week it was announced that New Yorkers must hereafter call at 76th street and Broadway, where chauffeurs are being examined and where the so-called Touring Club of America is receiving such fine advertising, and stand in line and prove their property, so to speak.

The examination of chauffeurs is proceeding more or less merrily. "Full houses" are so much the rule that Mr. Koenig's highly competent political examiners are conducting "night schools" in order to relieve the pressure. Joseph Tracy, the assistant chief examiner and one of the few who really "know automobiles," already has had enough. He resigned this week. The hardest thing many of the chauffeurs have to contend with is their record of arrests. Not a few of them with long records dodged the question on this point and have had their blanks returned to them. Unexpectedly their "sins have found them out," and they are in a pretty pickle; some of them are depending on political influence to see them through.

So far as known, no chauffeur has been subjected to a road test, but it is announced that Mr. Koenig, with the state's money, of course, has purchased a Locomobile for

the purpose of—well, testing the skill of the chauffeurs. It is perfectly clear that with 30,000 drivers to "test out," one car will fill the bill, or some bill, anyway.

The new law appears fairly well understood, save in respect to the speed limits enforceable. While it is generally known that New York, Buffalo and Rochester, as cities of the first class, can set their own limits and that in the open country 30 miles per hour is the limit which defines "careful and prudent" driving, it is not so well known that in all save the cities named a speed of less than 15 miles an hour cannot be imposed. The law requires that "Slow Down to — Miles" signs be erected and that copies of local ordinances be filed with the Secretary of State at least 30 days before they become effective—a fact the full meaning of which appears not to have dawned on any of the many cities and towns affected.

## Oldfield Entertains the Parkersburgers.

More "world's records for half mile dirt tracks" apparently went by the board at the Parkersburg (W. Va.) Automobile Club's race meet at Shattuck Park, on Thursday, 21st inst., when Ben Kirscher, understudy of Barney Oldfield, drove his battle scarred Darracq two miles in 2:24. It would seem, however, that the Teuton's "records" don't count with Barney, for despite the fact that Kirscher drove a mile on a half mile track at Wheeling a few days previous in 1:05¾, which duly was announced as superseding Oldfield's record of 1:06¾, when the latter twice circled the Parkersburg oval in 1:06 the announcer gave it out as a new record, ignoring Kirscher's figures. The meet was marred by an accident, the car driven by A. H. Wheaton crashing into the fence. He got off lightly, but his mechanic, John Dana, was seriously hurt.

## Mayor Stands up for Youthful Drivers.

Although various states have decided upon an age limit for chauffeurs, and many cities have passed ordinances to this effect, the mayor of Lawrence, Kan., does not believe in restricting the age of automobile drivers to some limit fixed arbitrarily. In vetoing the ordinance when it came to him for approval, he stated that many young men of 17 or even less were just as capable and reliable as a good many older men, and that the fixing of 18 years was arbitrary and unjust.

## Motor Parkway Sweepstakes Off.

Giving as a reason the professed inability of several of the dealers who had entered cars to secure their 1911 models in time for the event as originally scheduled, A. R. Pardington, general manager of the Long Island Motor Parkway, has announced that the Inaugural Parkway Sweepstakes, which were set for Saturday, 30th inst., have been declared off for the present.

**PREMIER LOSIS GLIDDEN TROPHY**

**A. A. A. Sustains Protest and Awards Prize to Chalmers—Premier Goes to Court and A. A. A. Delivers Uppercut.**

Although judges are chary of such things and usually make short work of them, it is possible that the Glidden touring contest of 1910 may be re-run in the courts. The Premier Motor Mfg. Co. has made the first move in that direction. For after having won the Glidden trophy, the Premier company has lost it, and has appealed to the courts to regain it and to prevent its being presented to the Chalmers Motor Co., to whom it has been awarded.

It lost the famous prize at a meeting of the contest board of the American Automobile Association, which occurred in New York on Thursday last, 21st inst., at which the protest of the Chalmers Motor Co. against the Premier cars that participated in the Glidden contest was considered. As it was not generally known that the Chalmers people had appealed from the decision of the referee awarding the trophy to Premier No. 1, which was driven by Ray McNamara, the action of the board in disqualifying the Premier and awarding the prize to the Chalmers, driven by William Bolger, was almost in the nature of a sensation. It was followed by another one when the Premier company on Saturday applied to and obtained from Judge Kelly of the Supreme Court of New York State, a temporary injunction restraining the A. A. A. from delivering the prize to the Chalmers company. The sensations did not end there, as yesterday (Wednesday) the A. A. A. contest board reconvened and countered heavily on the Premier interests by disqualifying the Premier Motor Mfg. Co. and H. O. Smith, its president, and until further notice rendering them ineligible to all contests sanctioned by the A. A. A.

The Chalmers protest against the Premiers, which originally was over-ruled without hearing by the referee, due to misunderstanding, it now is alleged, was due to the fact that both Premiers, Nos. 1 and 2, were equipped with auxiliary oil tanks and pumps for forcing oil direct to the crank case, which the Chalmers' interests contended was a violation of the rule relating to stock cars. The Premier people then claimed that 22 per cent. of their product was so equipped and the referee apparently accepted the statement. The Chalmers appeal to the A. A. A. contest board followed. At the hearing on Thursday last the Premier company was represented by counsel in the person of Sidney S. Gorham, of Chicago, who once was secretary of the A. A. A. Others present were: S. M. Butler, chairman; David Bee-croft, T. A. Wright, J. H. Wood, of the con-

test board; Alfred Reeves, E. R. Hollander, of the advisory committee; Alexander Churchward, Alden L. McMurtry, of the technical committee.

The meeting was long and, there is reason to believe, animated. The result was that the Chalmers protest was sustained and the Glidden trophy awarded to the Chalmers car. The decision of the board was made public in the following form:

"The appeal of the Chalmers Motor Co. is sustained. There was no evidence adduced before the contest board on this appeal, or before the referee or at the time the Premier entries were made, or at the start of the 1910 Glidden tour, to prove that the auxiliary oil tank and pump equipment was stock equipment. The contest board finds that this auxiliary oil tank and pump equipment was not stock equipment under the rules.

"The Premier Motor Mfg. Co. failed to comply with Rule 6 of the 1910 Contest Rules in not furnishing to the technical committee of the American Automobile Association, after repeated demands, from June 29th to July 21st, 1910, during which period three of its members visited the Premier factory, evidence sufficient to establish the stock status of Premier cars Nos. 1 and 2 entered in the 1910 National Reliability Tour of the A. A. A., in respect to equipment of auxiliary oil tank and pump for injecting oil direct to the crank case.

"The decision of the referee is reversed and Premier cars Nos. 1 and 2 are disqualified and the Glidden trophy awarded to the Chalmers Motor Co.'s entry No. 5."

The Premier counsel lost no time in calling into the case a New York attorney, George C. Lay, and in hurrying across the Brooklyn bridge to Judge Kelly, who promptly granted the injunction which temporarily at least serves to prevent the delivery of the trophy to the Chalmers company. Concurrently, H. O. Smith, president of the Premier company, issued a long statement, the burden of which is that the A. A. A. should have discovered the offending oil tanks and pumps before the contest started, and if they were illegal and in violation of the stock car rule should not have permitted the Premier cars to start. Among other things, he says:

"It has not been, nor will it be, charged or intimated by anyone that the entrants of the Premier cars were guilty of any misconduct, or that any deception or sharp practice was attempted by them or either of them. On the contrary, their good faith is acknowledged. If the cars, for any reason, were not eligible, it was the duty of the technical committee to have so advised the entrants and disqualified the cars before the start of the contest, as the purpose of the preliminary inspection, as stated by rule 404, is to determine if each car 'is a stock car and regularly equipped,' and rule 53 further provides that 'a protest relative to classification, validity of entry or

pertaining to the course, shall be made before the start of the contest.' The purpose of the last mentioned rule is obvious. It is intended to prevent a disappointed competitor, after his own hope of winning the trophy has been shattered, from protesting the winning car upon the ground that it was not eligible to compete, and should not have been permitted to start. If such a competitor wins the trophy no protest of this character will be filed, and the non-enforcement of this rule gives him two chances, one of winning on the merits of the cars, and the other of winning upon a technicality. If, in the other hand, the Premier cars were entitled to start, and the technical committee decided that they were, no one can question my right to the trophy under a fair and reasonable construction of the rules. The score and entire official record of the Premier car No. 1, the accuracy of which has not been questioned, compared with the scores and official records of all other competing cars, was the basis upon which the referee awarded the trophy to me as the entrant of Premier No. 1.

"No fault has been found with the conduct of the drivers of the Premier cars during the contest, nor has even a suggestion been made that they, or either of them, failed to comply with the letter and the spirit of the rules governing the tour. The evidence submitted to the board, even if admitted to be true, would not justify the reversal of the referee's decision."

The A. A. A. contest board did not lose any time in meeting the Premier move. Yesterday, as stated, it reconvened and disqualified Smith and his company. Its reasons were succinctly stated in the following resolution:

"Whereas, Said H. O. Smith, president of the Premier Motor Mfg. Co., notwithstanding his entry blank agreement to recognize the jurisdiction of the contest board and abide by its rulings and decisions, now openly denies such jurisdiction and disregards the ruling of the contest board, and did on July 23rd apply to and secure from the Supreme Court of Kings county, state of New York, on his ex parte statement, a temporary injunction restraining and enjoining the contest board from taking the necessary steps for turning over the Glidden trophy to the Chalmers Motor Co., in accordance with the decision of the board of July 21st, 1910, and has caused to be published in the public press a statement of his actions and the reasons therefor, including allegations not in accordance with the facts against members of the contest board, all of which conduct is a breach of the 1910 Contest Rules and is prejudicial to the welfare of the sport and industry;

"It is therefore ordered that H. O. Smith and the Premier Motor Mfg. Co. are hereby disqualified and rendered ineligible for competition in all contests held under the sanction of the contest board of the A. A. A. until further notice."



## AMERICAN RACE MEET IN CANADA

### Buffalo Association Crosses Border to Find a Track—Chevrolets with Special Racing Cars the Biggest Winners.

With the latest snub-nosed speed creations of the Buick factory pitted against a field of ordinary stock machines of much less power it was not surprising that the Chevrolet brothers should have practically monopolized the program at the Buffalo Automobile Trade Association's two days race meet at the Fort Erie track, on Friday and Saturday, 22nd and 23rd inst. Between them the Buick pilots accounted for ten events, Louis gathering eight of them and his brother Arthur the remaining two.

While the "invaders" naturally usurped most of the spotlight, the local men managed to save a few events and had the pleasure of leading the Chevrolets to the wire on a few occasions. Ned McCormick had a fast Herreshoff which carried him to victory three times—in the free-for-all handicap and a 5 miles class event on Friday, and another 5 miles on Saturday. Both of the Chevrolets took McCormick's dust in the handicap, although they made desperate efforts to pass him. The Herreshoff machines were painted red, white and blue, respectively, and attracted much notice. H. P. Hardesty, Pullman, also captured a first by winning a class 5 miles race in fine style. Ned Crane, Maxwell, also registered in the winning column by defeating McCormick and Arthur Chevrolet in a handicap on Saturday.

#### First Day—Friday, 22d.

Despite the fact that the Grand Trunk railroad which connects the track (which is across the river on Canadian soil) with Buffalo is tied up by a strike, the automobile men solved the transportation problem in excellent fashion by arranging a ferry service to the Canadian shore, where busses met the throngs and carried them to the course. Notwithstanding this inconvenience the meeting was well attended on both days. To further facilitate the attendance of motorists with cars the management arranged with the Canadian customs men to admit all cars going to the track free of duty, special permits and tags being attached to the cars before they left the American side.

Without question the best race of the opening day was the 5 miles class for 231-300 cubic inches cars. Hardesty in the Pullman jumped the field at the gun, and unwound a remarkable burst of speed which gained him a lead of nearly 150 yards in the first lap. When the others realized the state of affairs they went after the runaway in determined fashion. Louis Chevrolet setting the pace for them. For three miles

Chevrolet swallowed Hardesty's dust, slowly gaining on him and finally sailed by half a mile before the finish. Time, 5:22. After five straight victories in the stock classes and free-for-all, Chevrolet had to take water in the handicap. Crane in the Maxwell, the limit man, had one minute on the scratch men, and although they did some whirlwind driving they were unable to wear down the long markers. Crane won, McCormick was second and Arthur and Louis Chevrolet third and fourth, respectively. The windup for the day, a 5 miles class event, went to McCormick, Emmons being the runner-up. The Chevrolets, the only starters in the free-for-all, seasawed for the lead with an earnestness that seemed genuine. Arthur won by 100 yards in 5:08.

#### The summaries:

Five miles, 161-230 class—Won by Louis Chevrolet, Buick; second, Ned Crane, Maxwell. Time, 6:10.

Five miles, 231-300 class—Won by Louis Chevrolet, Buick; second, H. P. Hardesty, Pullman. Time, 5:22.

Five miles, 301-450 class—Won by Louis Chevrolet, Buick; second, H. P. Hardesty, Pullman; third, Ned Crane, Maxwell. Time, 5:40.

Five miles, 451-600 class—Won by Louis Chevrolet, Buick; second, Arthur Chevrolet, Buick. Time, 5:55½.

Five miles, free-for-all—Won by Louis Chevrolet, Buick; second, Arthur Chevrolet, Buick; third, Ned Crane, Thomas. Time, 4:59½.

Five miles handicap—Won by Ned Crane, Maxwell; second, Ned McCormick, Herreshoff; third, Arthur Chevrolet, Buick. Time, 5:37.

Five miles, under 160 cubic inches—Won by Ned McCormick, Herreshoff; second, Walter Emmons, Herreshoff. Time, 6:00½.

#### Second Day—Saturday, 23d.

As on the previous day, the Chevrolets again confiscated all but three events on Saturday, their victories being of the surething order. Louis Chevrolet's star performance of the day was his mile record trial against Christie's mark of 54 seconds for the track. Despite the thick dust and ruts the Swiss daredevil hurled his beetle-shaped car around the oval in a reckless fashion that made the spectators gasp, but the best he could do was 0:55½. In the handicap McCormick and his Herreshoff again proved too hard a nut to crack, and won in a sizzling finish, Hardesty in the Pullman and Arthur Chevrolet following in that order. Hardesty evened up things with McCormick by trimming him in the five miles for cars selling at \$1,201-\$1,650, and the latter again accounted for the final event, 5 miles for cars under 160 cubic inches.

#### The summaries:

Five miles, 161-230 class—Won by Louis Chevrolet, Buick; second, Ned Crane, Maxwell. Time, 6:11½.

Five miles, 231-300 class—Won by Louis Chevrolet, Buick; second, H. P. Hardesty, Pullman; third, Ned Crane, Maxwell. Time, 5:45½.

Five miles, 301-450 class—Won by Arthur Chevrolet, Buick; second, Louis Chevrolet, Buick. Time, 5:26½.

Ten miles, 451-600 class—Won by Arthur Chevrolet, Buick; second, Louis Chevrolet, Buick. Time, 11:00½.

Five miles, free-for-all—Won by Louis Chevrolet, Buick; second, Arthur Chevrolet, Buick. Time, 5:08.

Five miles handicap—Won by Ned McCormick, Herreshoff; second, H. P. Hardesty, Pullman; third, Arthur Chevrolet, Buick. Time, 5:18.

Five miles, stock chassis, \$1,201-\$1,650—Won by H. P. Hardesty, Pullman; second, Ned McCormick, Herreshoff; third, Walter Emmons, Herreshoff. Time, 5:49½.

Five miles, under 160 cubic inches—Won by Ned McCormick, Herreshoff; second, Walter Emmons, Herreshoff. Time, 6:39.

#### Miss Scott Completes Her Long Journey.

Miss Blanche Scott, with her companion, Miss Amy Phillips, and her gold and white Overland car, have reached San Francisco. "The Car, the Girl and the Wide, Wide World" outfit, which left New York on the morning of May 16th last, was put on the road for the purpose of demonstrating that two bright young women, possessing, in addition to a natural fund of wit and wisdom, a good car, could travel that portion of the wide, wide world which is recognized by loyal citizens of the United States without let or hindrance, looking out for themselves, looking out for the car, and generally enjoying themselves after the manner known to nomadic aborigines—and American tourists. These objects, apparently were accomplished.

#### To Start the Vanderbilt at Daybreak.

If there is any helpful glamor or romance attached to the starting of the Vanderbilt cup race at daybreak, as often has been asserted, it will be demonstrated on October 1st, when the next contest for the famous trophy will be held on the Long Island Motor Parkway. The promoters have decided to return to the original order of things and start the cars on their long whirl at break of day. The early start, of course, requires the spectators to move to the scene during the night, and the moving undoubtedly adds picturesqueness to the occasion and serves as an excuse for very many things.

#### Heavy Rain Postpones Atlanta Races.

Rain which began shortly before starting time and fell in torrents for two hours, caused a postponement of the race meet scheduled at the Atlanta (Ga.) Motordrome on last Saturday, 23rd inst. It will be held on Saturday, 30th inst. A card of 15 events is on the tapis.

## WISCONSIN CONTEST PROVES CLOSE

Technical Examination Necessary to Decide the Winner—Six Days Eest on All Manner of Roads.

Six days of traveling over 808 miles of Wisconsin roads, embracing all sorts of highways from city boulevards to the vile backwoods stretches for which the Badger State is noted, sufficed amply to evolve a winner in the Wisconsin State Automobile Association's annual reliability contest on the 18th to 23rd inst., inclusive. While 22 of the 24 starters survived the gruelling test, and eight of them came through with perfect road scores, the fatal technical scrutiny killed off seven of the honor division and left Emil Hokanson and a Buick the winners of the Milwaukee "Sentinel" trophy, the final standing being as follows:

Driver and Car	Penalizations					Total
	Road	Brake	Clutch	Motor	Technical	
Emil Hokanson, Buick.....	0	0	0	0	0	0
Emil Estberg, Pope-Hartford.....	0	0	0	0	3	3
M. E. Springer, Franklin.....	0	4	0	0	2	6
W. H. Diener, Ford.....	9	0	0	0	0	9
Wm. Fisher, Buick.....	0	7	0	0	7	14
Arthur Gardiner, Rambler.....	2	14	0	0	0	16
John Heber, Overland.....	0	0	0	0	16	16
G. L. Thomas, Reo.....	0	8	0	0	11	19
W. L. McEldowney, Jackson.....	1	4	0	10	16	31
W. R. Rice, Kisselkar.....	0	26	0	0	8	34
N. C. Rice, Kisselkar.....	0	33	0	0	2	35
G. D. Waite, Petrel.....	26	0	0	0	12	38
J. W. Eviston, Johnson.....	23	0	0	0	19	42
Arthur Ove, Kisselkar.....	3	38	0	0	11	52
Lewis Strang, Pierce-Racine.....	9	33	0	0	11	53
F. P. Wilkins, Mitchell.....	56	0	0	0	1	57
Gordon Bird, Corbin.....	43	8	0	0	55	106
C. Kobersteen, Badger.....	78	52	0	0	12	142
George Browne, Marion.....	198	6	0	0	0	204
A. A. Jonas, Cadillac.....	115	46	0	5	256	422
Ross Henwood, Ohio.....	211	12	0	0	265	488
Dan Arbogast, Badger.....	605	22	0	0	21	648
Edward Collier, Rambler.....	2,613	*	.	.	.	.
Chester Cheney, Staver.....	*	.	.	.	.	.

\* Withdrawn.

Hokanson was pressed hard for first honors, and when the dust covered caravan returned to the Cream City on Saturday afternoon to undergo the technical ordeal, it generally was conceded that the holder of the trophy for the coming year would be either Hokanson, Emil Estberg with a Pope-Hartford or M. E. Springer, to whom were intrusted the destinies of the Franklin. Estberg went through the operative tests perfect, but the prospects of a tie were shattered when the mechanical sharps delved into the mechanism and found derangements which warranted them spoiling Estberg's spotless sheet with an assessment of three points. Springer drew penalties to the amount of 6 points for brake trouble and shortcomings in the technical quiz. The others who survived the road test without mathematical taxation were William Fisher, Buick; John Heber, Overland; G. L. Thomas, Reo, and W. R. and

N. C. Rice, who drove Kisselkars. Those who fell by the wayside were Edward Collier, Rambler, and Chester Cheney, Staver.

Long before 7 o'clock on Monday morning, the 18th inst., the starting hour, crowds began to gather in the vicinity of Hotel Pfister, Milwaukee, to witness the start of the largest and most pretentious motor function ever held in the Badger State. The weather man lent his aid by serving up his best brand of meteorological phenomena, and promptly at the appointed hour the contest got under way, John Heber in an Overland being the first to receive the word. Among the drivers, Lewis Strang, whose fame had preceded him, was the cynosure of all eyes, and temporarily forsook his aviation efforts on Long Island to participate in the contest at the wheel of a Pierce-Racine.

Madison, the state capital, was the destination of the endurancers on the first day, and the run was a repetition of the stock ovations which are promiscuously dealt out

suffering penalties, and one, Cheney's Staver, being unreported. The most severe sufferer was Browne's Marion, which received 198 points for carburettor adjustment. Although the weather was superb, the rough going and innumerable water breaks made it a test of men as well as machines. It was after leaving Marquette that the motorists' trouble first began, sand over a foot deep being encountered, and when not struggling with this enemy they were taking impromptu roller coaster rides on the water bars, some of which were nearly two feet high.

At Elroy lunch was taken on high speed, and the town relay dashes were resumed. In the afternoon run more sand and rocks were encountered until Cashton was reached, when Fate gave her wheel another twirl and for the rest of the day the motorists' aching bones had temporary respite from emulating dice in a shaker. The usual turnout and greetings from the farmers helped to relieve the day's run of some of its disagreeable memories. It seemed as if all the farmers for miles around had decided to lay aside their hoes and plows for a day and make the coming of the tourists the occasion for a huge picnic party. The country roads were thick with groups of farmers' families, who were camped in shady spots with lunches spread out, and enjoying themselves while awaiting the coming of the motorists.

After a day of continuous and seemingly never-ending climbing up and sliding down steep hills, Eau Claire, the halfway point, of the contest, was reached on Wednesday night, 20th inst., with the surprisingly small number of three penalizations handed out for the day. The Staver, which had failed to report at La Crosse that morning before the start, was officially declared out of the contest, but continued as a non-contestant. Thirteen cars still retained perfect scores at the end of the third day. The morning run to Whitehall, where a stop was made for lunch, was uneventful, but in the afternoon there were a few happenings to relieve the monotony. Near Brackett a bridge was washed away, necessitating a four miles detour from the official route, and that four miles was a continuous manipulation of the gear shifting levers to negotiate the succession of hills encountered.

August Jonas and party in the Cadillac qualified as volunteer firefighters just outside Eau Claire by assisting some youngsters to extinguish a straw fire in the road. The motorists acquitted themselves nobly and no damage was done. At Eau Claire a large crowd greeted the visitors on their arrival, and that evening they were the guests of the Eau Claire club.

Although excellent weather and roads combined to make the run on Thursday to Merrill a real pleasure, five cars were docked for mishaps during the day, one of them, the Badger, driven by Arbogast, suffering heavily with an assessment of 68

to contestants in motor events by the rural inhabitants. In many places lunches were awaiting those who cared to stop, while those who did not received their donations on the fly. Good roads were the rule, and the few spots which it was feared would cause trouble were conquered easily. All of the cars reached the night control, but four incurred penalties during the day. Strang drew 7 points for taking on water and stopping the motor, Eviston's Johnson was taxed 5 points for fan trouble and oiling, Bird in the Corbin incurred an assessment of 5 points for motor stops and carburettor trouble, and Wilkins' Mitchell fell from grace to the extent of 2 points through a broken lamp bracket.

In sharp contrast to the easy run on Monday, Tuesday's journey to La Crosse was a continual battle with sand, and the effects were vividly illustrated that night when the scores were given out, eight cars

points. Eleven cars had perfect scores on Thursday night. The day was an exciting one indeed for the press representatives in Collier's Rambler, which twice shed a wheel but no one was injured. The first time the wheel—a rear one—came off near Chipewewa Falls, and although no serious damage resulted it required five hours to get going again. In making up lost time the car was sent along at high speed for 100 miles, when the wheel again parted company with the car, and, jumping a high fence, landed in a nearby field. Temporary repairs were made and the car reached Merrill late that night. The town was dressed in holiday attire for the motorists and anything was theirs for the asking.

Making an early start from Merrill Friday morning, a dash of 120 miles brought the dust raising caravan to Appleton that night, after a tussle with several wicked sand stretches, but on the whole the day's going was fair. The unfortunate Collier Rambler which had wheel trouble the previous day continued under the burden of 1613 points charged against it for the mishap.

With the longest day's run of the contest, 158 miles, before them on the final day, Saturday, the fortunate ten who still had clean bills of mechanical health, headed for Milwaukee with the firm determination to preserve their spotless road records to the finish, but despite their best efforts two went down on the final leg. The unfortunates were Waite in the Petrel, who lost 26 points, and McEldowney, Jackson, who received one black mark. The Collier Rambler withdrew on Saturday, it being hopeless to continue under such a handicap. As previously mentioned, eight cars completed the run with perfect road scores, and immediately after checking in at the final control all the cars were put through the technical grill.

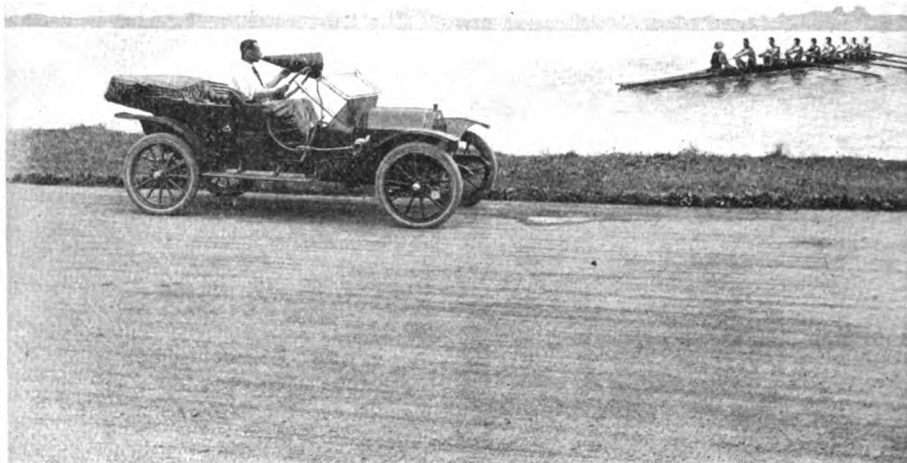
First came the brake tests, the cars individually following a pacemaker at 18 miles an hour, and the brake being applied on signal, a distance of 50 feet being allowed to bring the car to a standstill, with a penalty of 1 point for every additional foot required. Each car had two trials, the service and emergency brakes being tested separately. On the service test the Ford made the best showing, stopping in 25 feet, while with the emergency equipment 43 feet were required to come to a standstill. The Pope-Hartford and Overland brakes also showed up well, with stops in 31 and 28 feet respectively. The results of these tests furnish much food for thought, seven cars undergoing both tests successfully, while eight got by on the service test and flunked on the emergency tryout; two cars which overran the mark on the service test retrieved themselves with the emergency equipment, and five machines fell down on both tests. All of the cars passed the clutch test, which consisted of starting at the bottom of a hill

on low speed and then throwing in the high.

#### Motor Car Coaching for Rowing Crew.

Marathon runners and cycle racers have become quite accustomed to being coached from motor cars, but it is seldom that racers on the water enjoy the benefits of being coached from an automobile while they themselves are afloat, in the way disclosed by the accompanying illustration. One of the chief benefits of rowing in gymnasium tanks is the fact that the coach can be close to the men all through the rowing

have driven their cars into the interior until held up and turned back by the secret service men. The roads are narrow, and in turning the cars ran over on to the grass, and it was here that the concealed enemy of tires got in its work. Many tires were mysteriously punctured when trespassing on the grass, but the reason was not apparent until an owner whose front tires went down suddenly investigated and discovered the cause and spread it broadcast. As a result the word has gone around, and unwelcome cars are giving the presidential quarters a wide berth, while Beverly gar-



COACHING THE COLLEGE CREWS BROUGHT UP TO DATE

process and can give each of them individual instruction at the moment his faults appear, but Vivian Nickalls, at one time the premier sculler of the world, has found it possible, by using an Everitt car, to give to Detroit's star eight-oar crew all the benefits of tank instruction combined with actual work-outs in the shell. The rowing course is parallel to a boulevard, and by keeping pace in his machine, Nickalls is able to give megaphone instructions to each member of the crew, which latter, incidentally, won the Interstate eight-oar championship at Philadelphia on July Fourth.

#### Punctures for Taft Intruders.

According to the newspapers the latest aid to the secret service men who keep watch over President Taft's summer home at Beverly, Mass., to prevent strange automobiles from infringing on the privacy of the President's grounds, is that time-honored rural weapon, the plank studded with nails and hidden in the grass. Despite the signs at the entrance to the grounds warning visitors to keep out, several motorists

agamen decline to rent cars for a trip to the summer capital unless the renter has an appointment with the President.

#### Taxicab Rears when Shaft Drops.

One of the most unusual of accidents occurred on Tuesday last in front of the St. Regis hotel, New York City. A taxicab was driven past the hotel at good speed, when suddenly the propeller shaft broke at its forward end and dropped to the ground. The jagged end buried itself in the soft asphalt, and the taxicab reared up on its front wheels, while the rear wheels kept on spinning in the air. For a few moments the car balanced itself on its front wheels and then dropped back to a level position once more. The two shocks pitched the two passengers first against the windshield and then against the rear seats, injuring them considerably. The accident is a rare one, and on some cars could never happen, as the forward part of the shaft is protected against dropping to the ground after a break by a loop-like arrangement which catches the falling shaft.

## SEVENTEEN IN MINNESOTA RUN

**There Was a Prize at Stake, but Rivalry did not Interfere with Fun—Referee was Caged.**

Competing in the Minnesota State Automobile Association's second annual endurance run for the St. Paul "Dispatch" and other trophies, 17 cars filed out of the Minnesota capital on Friday, 22nd inst., on a six days test of 660 miles through Minnesota and South Dakota. The starters were as follows: F. E. Hypins, Cartercar; G. L. Gilbert, Chalmers; B. E. Sylvester, Glide; C. W. Schanno, Halladay; O. E. Martin, Hudson; A. H. Clark, Franklin; A. A. Hanson, Ford; W. A. Alden, Cole; Frank Seifert, Cole; Arthur Laroche, Regal; W. J. Ranger, Auburn; Rudd Stensvad, Cadillac; A. P. Heaney, Halladay; Troy Duis, Staver; C. A. Lewis, Reo; E. B. Stimson, Hupmobile; O. C. Phillips, Pierce-Arrow.

Styled the "Little Glidden," which now seems to be the proper appellation of most ambitious local endurance functions, the tour was launched successfully in the presence of a large crowd, with a limbering up run of 168 miles to Mankato laid out for the first day. The process of shaking down the cars and occupants was a gentle procedure, good roads and good weather collaborating in making the initial leg of the tour an easy one. Of course there were a few penalizations, but they were for minor troubles. Other promoting clubs can learn a lesson from the example set by the pilot car which placed red flags at approaches to dangerous points, thus enabling the drivers to avoid accidents through unfamiliarity with the territory. Towns along the route were dressed in flags and bunting, while the people lined the streets and cheered the visitors as they flitted by.

There were two narrow escapes from serious accident on the first day. While making up lost time caused by tire trouble, B. E. Sylvester, Glide, struck an obstruction near Albert Lea which caused him to veer from the road. The shock of the impact almost threw the occupants of the car out but Sylvester managed to retain control, and a broken spring was the sum total of the mishap. The other close shave happened to J. H. Seagraves in the Pierce-Arrow press car while trying to pass another machine on a curve. The dust was so thick that Seagrave did not notice the bend and ran off the road, jumping a six-foot ditch, but the driver straightened out and got back on the road without damage. The Hupmobile, Cadillac and Auburn were the other penalty winners on the first day.

On Saturday the visitors encountered rain and a stiff gale near Windom, which retarded progress considerably, and by way

of good measure the pilot car contracted a fit of obstreperousness which resulted in its temporary abandonment, while Ranger's Auburn slipped off a culvert and turned turtle. Nor was this all of the day's happenings on the run to Sioux Falls in South Dakota, 172 miles, for one car was disqualified for violation of the rules. Near Windom the pilot went to the bad and the flag was transferred to another machine, while the disabled car was convalescing. Windom seemed to be a sort of hoodoo for the tourists, for it was near there that all of the mishaps occurred. Ranger's upset occurred while he, in trying to make room for another car to pass, pulled over too far on the edge of the road and went off a culvert into the ditch, landing upside down. The passengers were thrown clear and escaped with bruises. The engine of the car continued to run when it landed in a heap, and after the car was righted it continued in the run.

Entering Sioux Falls, the turning point of the run, the travelers observed the extensive decorations strung in their honor, practically every prominent building being dressed up. The motorists were accorded an enthusiastic welcome, and numerous receptions and entertainments were arranged in their honor for the following day, Sunday. The Studebaker press car, driven by S. H. Rothenberger of Minneapolis, which was not a contestant, was disqualified for breaking the rules by entering Sioux Falls ahead of schedule and for carrying advertising banners, and the owner was requested to leave the tour. During their stay in the city the cars were parked under guard at the Cataract Hotel.

After a day's rest and diversion, following a great banquet on Saturday night, at which over 300 people were present, the refreshed tourists left Sioux Falls with pleasant memories of their stay, on the homeward run. On Monday, 25th inst., Redwood Falls, 164 miles, was the day's objective, with Marshall designated as the noon stop. During the morning rain fell, but after reaching Tyler the sun broke through the clouds. The pilot car again fell from grace, losing the trail and taking the motorists into Tyler over a wrong road. The rough going began to tell on the cars, and many suffered spring and axle troubles.

In many respects Monday proved the most eventful day of the tour. Not the least interesting happenings were the doings of the occupants of the Pierce-Arrow press car. For a time they were lost in the tall grass near Heron Lake, but after floundering about for an hour they got their bearings again. The marksmanship of Driver Seagraves of this car was a general topic of conversation among the tourists when the story leaked out. For want of some excitement to relieve the monotony, the members of the party indulged in a little jack rabbit hunting on

the fly, and Seagraves potted one of the animals while the car was running at 30 miles an hour.

For originality and heartiness of welcome the citizens of Marshall outdid all other communities, which entertained the tourists before them. A mile outside of the town the tourists came upon flags set in the road a few feet apart, and soon a party of 50 local motorists appeared to escort the travelers into town. Upon their arrival the tourists were led to the banquet hall, where they found the tables arranged in a circle and around their entire length ran a miniature automobile road lined with miniature cars. The ice cream was served in the form of small automobiles, and flags bearing the name of the town were distributed as souvenirs. At the conclusion of the banquet the post prandial exercises commenced and the guests were treated to another surprise when C. C. Whitney of the Marshall "News" arose and in a neat speech presented the visitors with a huge floral piece over five feet square. The unique gift later was shipped to St. Paul. It was with regret that the tourists prepared to leave Marshall for the afternoon run to Redwood Falls, where they stayed over night. Mayor Davis and other prominent citizens of Marshall accompanied the tourists to Redwood Falls. Although the afternoon's run was over heavy roads, the cars came through in good shape, the only tardy ones being the Cole and Hupmobile, which were delayed by tire trouble. An influx of over 100 people at one time proved too great for the Redwood Falls bonifaces, and the citizens opened their homes for the reception of the motorists.

Never in its history has Redwood Falls experienced such unrestrained high jinks as it did on Monday night, 25th inst. Mayor Philbrick gave the visitors the keys of the city and told them to go as far as they liked, and they took him at his word. The tourists seized everything in sight as their whims dictated, swooping down on the fire department apparatus and parading through the streets with it, tolling the fire bell and setting off pyrotechnics at a mock fire. Until long after midnight a crowd of lively spirits in single file did a lock step about town with the mayor, the marshal and chief of police at their head. Earlier in the evening the tourists captured the mayor, chief of police and a couple of the tour officials and imprisoned them in a cage in the city park, charging an admission of five cents to the enclosure to hear the captives make speeches. The receipts of the compulsory oratorical meeting went to defray the expenses of the evening's fun. It was with a warm spot in their hearts for Redwood Falls and its inhabitants that the tourists left that hospitable town on Tuesday morning for the final day's run, with Minneapolis, 154 miles away, to be reached before nightfall. The results of the contest will be made public today.

## NEW JERSEY BEGINS TO SQUIRM

Full Force of Frelinghuysenism Now Being Felt—Massachusetts Arrests Jersey-men and New York Makes Ready.

New Jersey motorists now are gathering a full crop of the over-ripe and astringent fruit grown on the Frelinghuysen tree. The itinerant senator of that name whose dictum as once expressed in his exact language to a Motor World man was: "Everybody who comes into the state must pay something" is discovering that more than two can play at that game, and that it is an expensive and vexing one to the victims who are the citizens of New Jersey whom he represents in the legislature at Trenton when that duty calls him from his home and business in New York.

For several months the neighboring states of Pennsylvania and Delaware have been making things interesting for the New Jerseymen who stray in their direction, and on August 1st, when its new law goes into force, New York also will take a hand in the pastime. It then will be in a position to exact such an "admission fee" as New Jersey for years has squeezed from non-residents, in accordance with the Frelinghuysen dictum, and the howl which is arising from the opposite shore of the Hudson is sufficient to testify that the prospect is not a pleasing one. Point was added to the situation last week when the Highway Commission of Massachusetts issued instructions to all police and court authorities to keep eyes open for and to arrest and fine all New Jerseymen who wandered into the Bay State without having paid its "admission fee."

The immediate result was the discovery of three such offenders who promptly were haled to court and fined, and though they were not exactly escorted to the boundaries of Massachusetts and expelled like criminals, they were given permits or "passports" that allowed them to backtrack, without further molestation, to the Connecticut line, the Nutmeg State being the only one in the East in which New Jerseymen are free to travel without payment, which freedom probably will be curtailed by the next legislature.

Massachusetts's stern illustration of the far-reaching effects of Frelinghuysenism was not lost on New Jersey.

Under the leadership of the Associated Automobile Clubs of New Jersey, which last year unsuccessfully sought similar legislation, plans are making for an immediate campaign to obtain the passage of reciprocal motor vehicle legislation in that state during the next session of the state legislature. Joseph H. Wood of Newark, president of the organization, declares that mass meetings will be held in all parts of the state to urge the wiping out of the

present "admission fee" exacted of non-residents and to extend to them the same rights and privileges, as have been extended by other states to New Jersey motorists.

How the New Jerseymen themselves view their predicament is illustrated by these expressions of one of them:

"We knew what was coming right along, and yet there seemed to be an apathetic feeling about the matter. Every one seemed to think it was some one else's business to take care of it. Both Delaware and Pennsylvania gave us an idea of what we could expect when they passed retaliatory measures last year. Later an interview was published with the men in New York who were then framing the Callan bill, and we were told that unless New Jersey did something to change the present law that would permit New Yorkers to come into this state under the same or similar conditions as New Jersey automobilists were enabled to tour New York state a retaliatory clause would be embodied in the law then framing.

"No action was taken by our legislature except to defeat such a measure and the bill went through. Now there is a howl. The Jersey motorist cannot go out of his own state unless he takes out another license. Even Massachusetts is adding pressure. The police of Springfield, Mass., arrested Dr. Frank B. Hustac of Montclair this week and fined him \$15 for operating his automobile in that city without a Massachusetts license. It is all very well for Commissioner of Motor Vehicles J. B. R. Smith to write a letter to State Highway Commissioner Hunter of Pennsylvania threatening to withdraw the touring privileges from the Pennsylvania motorists, but the latter are not to blame and should not be made to suffer. Two wrongs do not make a right.

"Practically every state in this section of the country has embodied a reciprocal clause in its laws and we should do the same. True the legal committee of the different clubs in the state did make an effort to have a compromise measure passed at the last session of the legislature, but it seems to me they waited too long. It was a good deal like locking the door after the horse had been stolen. They waited until almost the close of the session before they got busy. Now that the pocketbooks of some of these gentlemen are being touched, they suddenly are waking up and there is a big howl.

"The New Jersey automobilists have all along wanted a free interchange of touring privileges, and it seems ridiculous that a mere handful of men at Trenton should successfully oppose fair and just legislation of this kind. There are close to 25,000 automobile owners in New Jersey, and figuring that each one can control but one vote in addition to his own it means a total of 50,000 votes which can be thrown against the man or men who refuse to give justice to the automobilists."

## STRIKES AT BOGUS STOCK CARS

A. A. A. Wipes Out "Buick-Marquette" Performances at Indianapolis and Decides Two Other Cases.

In addition to sustaining the protest of the Chalmers Motor Co. against the Premier car, which apparently had won the Glidden trophy, the A. A. A. contest board at its meeting on the 21st inst. wrestled with two other stock car cases and in each instance the alleged stock cars were thrown to the mat.

The Buick Motor Co. and the Marquette Motor Co., each of which is a part of the General Motors' merger scheme, were the worst offenders. It appears that the Marquette concern had registered as stock cars under the designation "Buick roadsters" three models which were not, in fact, stock cars or stock chassis, but which were permitted to be used at the Indianapolis meet on July 1st, 2nd and 4th, under the style "Marquette-Buicks," the privilege being given with the express condition that in the event of successful performance, such performance was not to be advertised under any other designation. This condition was violated when on July 10th the victories of the so-called "Marquette-Buicks" were advertised as Buick victories and because of this violation, the performances were declared null and void by the contest board. The Marquette company had a representative present at the board's meeting, but that his excuses or explanations proved insufficient or unsatisfactory plainly is indicated by the action taken.

The other case was of a different nature and involved the status of a foreign car. It took the form of an appeal of the chairman of the technical committee from the decision of the referee in allowing the 1903 Mercedes car owned by Spencer E. Wishart of New York, to compete in stock chassis events at the Indianapolis Motor Speedway July 2nd and 4th last also. The appeal was sustained, and the decision of the referee reversed on the ground that no car which has not filed with the contest board the stock car certificate of description shall be allowed to compete in any stock car or stock chassis events, held under Classes "A" and "B" of the 1910 Contest Rules.

The appeal of the General Motors Co. from the decision of the referee in disqualifying the Buick roadster driven by Robert Burman in the Brighton Beach 24 hours race, May 13th and 14th, 1910, for violation of Rule 249, which provides that "when one or more parts of an assembled unit are damaged, such damaged parts only may be replaced," also was heard, the appeal overruled and the decision of the referee sustained.



**FRANKLIN LINE IN CHANGED DRESS**

**Betterments in Bonnets and Bodies—New Valves and Oiling System Among Mechanical Modifications.**

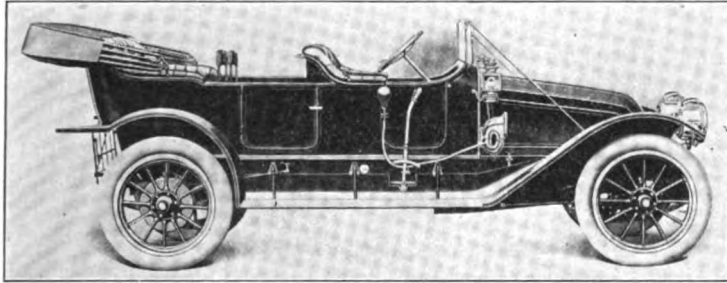
The distinctive torpedo type of Franklin car, which made its appearance at the shows last winter, has been rendered permanent and the sloping hood which characterized that machine has been adopted

ively the "H," "D," "M" and "G," and are rated at 48, 38, 25 and 18 horsepower. The six-cylinder models are built with full flush-sided bodies and are of the true torpedo type, while the two smaller models, though equipped with high-sided bodies and front doors, are more nearly of conventional pattern.

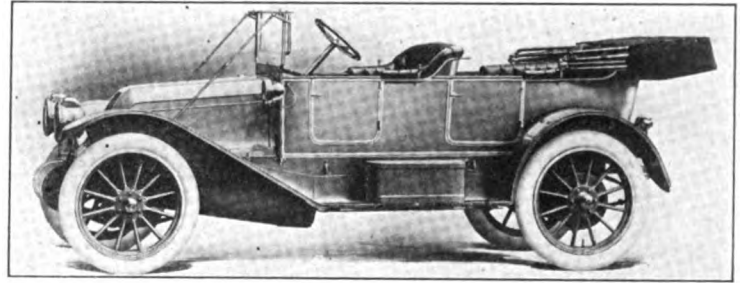
Longer wheel bases prevail, as compared with the models which have been produced hitherto, the specifications now obtaining being, in the sequence already employed,

sizes also have been increased. On the "H" cars, 37 by 5 and 38 by  $5\frac{1}{2}$  inch equipment is used on the front and rear wheels, 36 by  $4\frac{1}{2}$  and 37 by 5 on the "D," 34 by 4 by  $4\frac{1}{2}$  on the "M" and 32 by  $3\frac{1}{2}$  by 4 on the "G."

As has been indicated the general plan of the cooling system is the same as that which was introduced last year, and which involves the employment of chimneys, or air funnels, surrounding each of the cylinders through which the cooling blast is



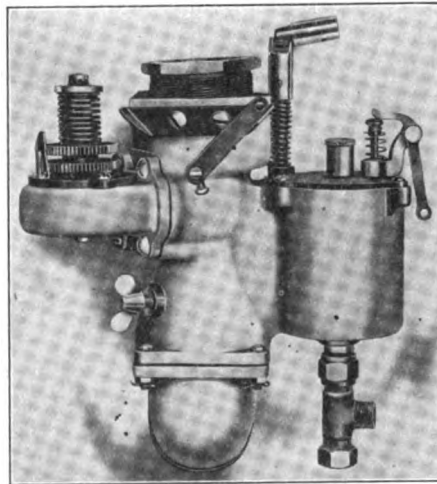
FRANKLIN MODEL "H" NEW STYLE BODY



DOUBLE TORPEDO-PHAETON MODEL "D"

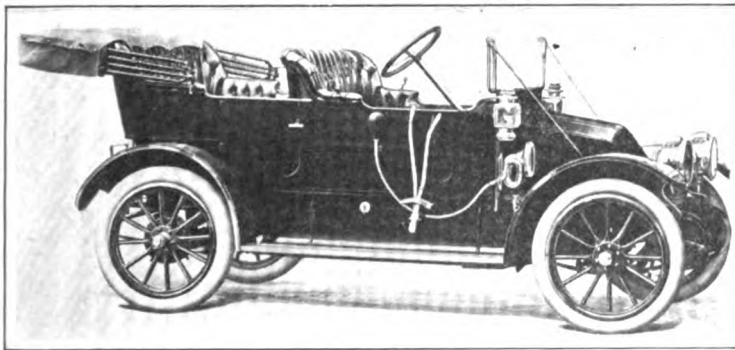
for the entire line as it henceforth will be produced. This is one of the most significant changes which announcement of its new product by the H. H. Franklin Manufacturing Co., Syracuse, N. Y., has brought to light. In the mechanical make-up of the line a no less radical change is that involving the abandonment of the concentric form of valve construction and its replacement by a more stereotyped arrangement of the valves side by side.

With these exceptions, the points which have rendered Franklin cars so distinctive are retained. The unique system of air-cooling, which was introduced last year, improving upon a system which has been a Franklin standby from the very inception of the line; the use of laminated wood frames, light chassis construction throughout, full elliptic springs and exceedingly

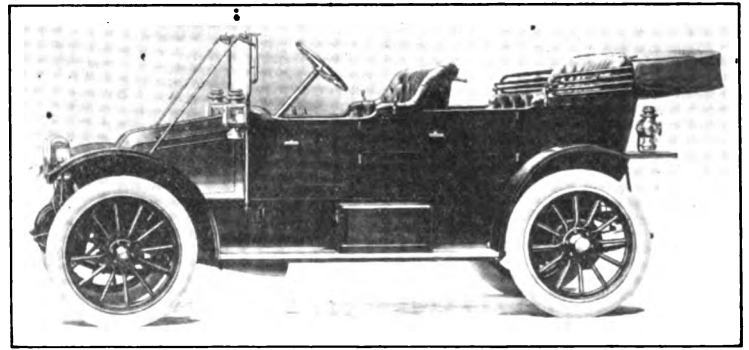


NEW FRANKLIN CARBURETTER

drawn from the upper section of the bonnet space to the lower and enclosed section by the action of the special form of fan embodied in the fly wheel. One or two slight alterations have been made in the system, however. For example, the diaphragm, or dividing partition between the upper and lower sections of the bonnet enclosure has been modified to the extent of doing away with the side wings which formerly filled in between the engine deck and the frame sides. The construction of the new hood permits a tight closure to be made with the edges of the flat deck, the result being that merely raising the hood gives instant access to the entire exterior of the motor. Another and relatively slight change has been made in the construction of the fly wheel fan, while a re-shaping of its housing provides for the deflection of



MODEL "G" 18 HORSEPOWER TOURING CAR



MODEL "M" 25 HORSEPOWER TOURING CAR

large tires in proportion to the weight carried are employed with confidence bred of several years experience. What alterations have been made for the most part are in the way of minor improvements.

Of the four models which constitute the new line, two are of four- and two of six-cylinder construction. They are, respect-

133, 122 $\frac{3}{4}$ , 107 $\frac{1}{2}$  and 99 $\frac{5}{8}$  inches. The four wheel base lengths of the previous models were 127, 106, 100 and 91 $\frac{1}{2}$  inches, respectively. This elongation of the chassis provides for a considerably increased amount of foot room and for more ample body construction in general, also considerably enhancing the appearance of the cars. Tire

the heated air from the cylinder surfaces away from the under side of the foot board and thereby prevents the occupants of the front seats from feeling the heat of the motor. The arrangement also prevents the pocketing of the air underneath the floor of the car.

As before, the cylinders are provided

with vertical cooling flanges, which extend outwardly to meet the walls of the cooling chimneys. Owing to the nature of the construction all of the cylinders receive an equal amount of cooling effect, and the amount of cooling always is proportional to the speed of the motor. Another noteworthy feature of the arrangement is that

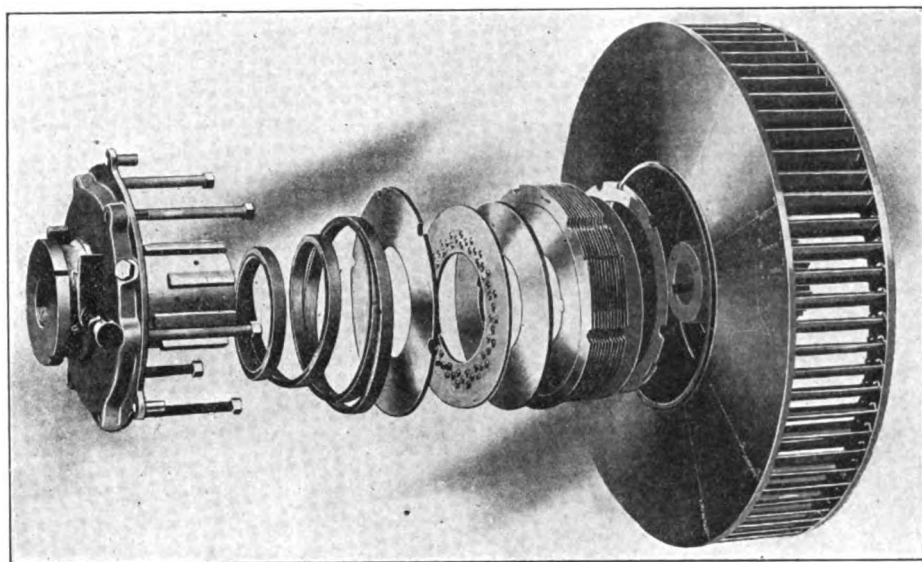
ends. It is fed to the bearing surfaces on the rods by centrifugal force, the overflow falling to the base, where it is collected and splashed up to the bottoms of the pistons.

The six cylinder models are provided with a new type of carburetter, which has an auxiliary air provision having a double

A new type of "endless" suction pipe is employed on all models, as is a vertical form of exhaust pipe which is new. Single ignition still is a feature with Bosch high tension magneto equipment. On the 18 horsepower machine the set spark arrangement is used, but on all the other models an improved form of spark governor is used; the six cylinder engines having a double spring pattern which affords very sensitive regulation. The sizes also have an accelerator pedal for control purposes which interconnects with the hand throttle.

The clutch is of the multiple disc pattern and identical with that formerly employed. The change gear, which is of the selective sliding pinion type, likewise remains unchanged. In the linkage of the service brake, which is applied to the forward end of the propeller shaft, however, a slight improvement has been made. On all but the smallest car a new type of spring perch, brake carrier and ball bearing retainer combined in a single piece has been applied.

Electric lights as standard equipment on the sixes, with storage batteries carried under the rear seat; simplified steering columns on all models, ventilated dash boards, four-way gasoline valves providing an outlet to the tank when it is desired to drain



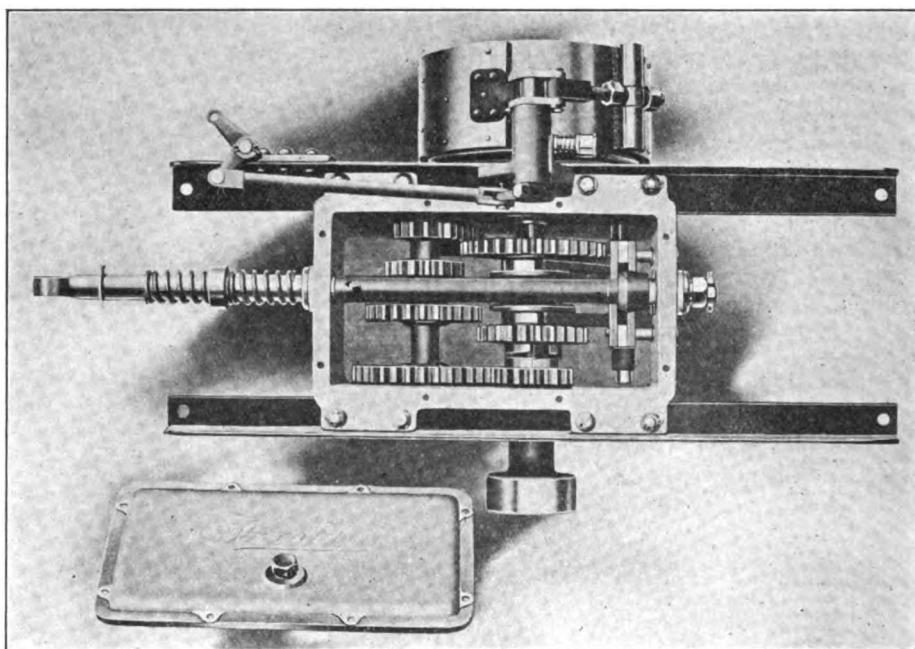
FRANKLIN FLY WHEEL, FAN AND CLUTCH ASSEMBLAGE

the cooling effect is uniform on all sides of the cylinders.

The new valve arrangement is claimed to afford particularly silent operation, and to render access to these vital parts extremely easy. Although the concentric arrangement of the valves has been abandoned, reliance still is placed on the use of double exhaust outlets, the main release being at the side of the cylinder and at the end of its stroke. Fully 70 per cent of the exhaust is removed in this way before the piston commences its ascent on the exhaust stroke proper, so that adequate time is given for the cylinder to be cooled before the entrance of a fresh charge after the burned gases have been disposed of.

The cylinder dimensions chosen for the four models are, respectively,  $4\frac{1}{2}$  by  $4\frac{1}{2}$  inches, 4 by 4, 4 by 4 and  $3\frac{3}{8}$  by 4 inches, bore and stroke. These are new dimensions, with the exception of those applied to the small four cylinder car, and they also represent the adoption of the "square" type of cylinder.

Another new feature is the oiling system, which combines the advantages of the splash and constant-feed force pump systems. Oil is fed into the engine base through a duct formed in the crank shaft and is supplied from a force feed lubricator. The manner in which it reaches the connecting rod bearings is unusual, however. It first is delivered to cups on the internal crank case bearings, whence it runs directly onto the shaft through a groove and thence through a hole in the shaft, which extends through to the connecting rod



CHANGE GEAR SHOWING NEW SERVICE BRAKE LINKAGE

spring controlling arrangement. By the progressive opening of the valves as first one and then the other, of the springs yields to increasing pressure, the quality of the mixture is held sensibly constant. Another feature of the new carburetter is a "mixing valve," which is intended to enable the operator to temper the air supply, mixing with air drawn from the atmosphere just enough hot air to produce rapid vaporization and mixing of the components of the gas.

it; and newly designed mud guards, lamps, tops, mufflers and luggage carriers are other points wherein changes of greater or less importance have been made. In this connection the new construction which has been adopted for the running boards is noteworthy. They are made with a half-inch opening in the middle to allow for expansion. The break is covered with linoleum above and protected by sheet metal below, however, so that no opening is discernable.

**WHY "FREIGHT" AND "PASSENGER"**

**Joyce Gives His Reasons for Favoring those Designations—Believes they Ultimately will Lead to Simplification.**

"I am not the author of the suggestion that we follow railroad practice and classify automobiles as freight and passenger cars," a few days since said James Joyce, manager of the American Locomotive Co.'s automobile department, "but the subject is one in which I am deeply interested and one it will be well to have discussed. It readily will be conceded that there has been great laxity and abuse in the application of automobile names. The confusion is becoming seriously awkward, and the time has come when an effort should be made by manufacturers and owners to keep in use the simplest and most fitting names. If the proper names are agreed upon and all will work together, this can readily be done. I have heard of men almost quarreling over the question of whether a certain car had on it a miniature tonneau, baby tonneau, toy tonneau, or runabout body. That, however, is trifling compared with the need for generic names for the broad division of automobiles.

"With the development of the motor vehicle in many different forms for carrying merchandise it must be recognized that it is becoming important to have in general use some classifying names to discriminate the vehicle used for hauling goods from that used for passengers. The designations that have sprung into common use are 'commercial vehicles' and 'pleasure cars.' While one says 'commercial vehicle,' however, another says 'motor truck,' another 'power wagon,' then another 'gasolene truck,' or 'electric truck' and so forth. Of the first two names, 'commercial vehicle' and 'pleasure car,' it is agreed that neither is adequate or desirable; both are vague and ill-fitting. The term 'pleasure cars' covers in a way the various species of touring cars, town cars, toy tonneaus, runabouts, etc., but as a generic name, it is decidedly objectionable, being too suggestive of 'joy riding' and other such frivolities.

"The expression 'commercial vehicle' does not afford a sufficient antithesis to any of the names applied to the motor cars used for individual transportation, and, besides, the term is far too loose a one; it applies quite as properly to a mule-drawn dray and a freight packet as it does to an automobile; again, it is too cumbersome. Personally, I would be in favor of the expression 'motor truck' to cover the whole range of motor vehicles used for hauling goods. The term is concise, euphonious and descriptive. Under this caption would come all the varieties of delivery wagons,

vans, lorrys, drays, etc., the same as there are now touring cars, limousines, etc., under the head of 'pleasure car.' The etymology of the word 'truck' and its general usage justifies its employment in this broad sense. The expression is now quite commonly used for the heavier vehicles, and if everyone interested began to employ it as the generic term for all merchandise carrying vehicles, referring to a 'thousand pound truck,' as well as to a 'five-ton truck,' it would soon be adopted. There is no sense in bucking the tide in this matter, but the wise thing to do will be to seek the path of least resistance by trying to have adopted names now in use, or others as simple and suitable as possible.

"In place of the expression 'pleasure cars' as a general term for the various runabouts, touring cars, limousines, etc., I suggest that 'passenger motor car' be substituted, though I am not seeking to have my own ideas adopted. What I most desire is to see a lively interest taken in the subject and a wholesome discussion.

"In suggesting the use of 'passenger motor car' as a generic term, I have a very definite idea that before long the first word of the phrase will be dropped, as being unnecessary to convey the proper meaning. There is excellent reason that this should be so. If we look into the origin and use of the word 'car' we will find that it carries the idea of passenger vehicle as an almost inevitable association. We get the word from the old French term, with which it is identical, but its derivation goes back to classic days when the racing and war chariots of the Romans were alternately called 'cars.' In Shakespeare we find allusion to the chariot of the sun god as 'Phoebus' car,' while the 'funeral car' of the middle ages continues in evidence on the death of royalty, or any mortuary occasion of great pomp and ceremony. Always there is associated with the word, it will be noticed, the idea of it being a personal conveyance and not a dray. Moreover, there is something of dignity and almost of majesty in the word. Therefore it is more than probable that the name 'motor car,' which forms a perfect antithesis to 'motor truck,' will eventually be found sufficient; yet it will be well to start with the expression 'passenger motor car,' in order to more effectually emphasize the distinction to those who are novitiates in the motoring field.

The word 'automobile,' which we borrowed from abroad, as we did 'motor car,' can be retained to embrace all classes of motor vehicles. But let us have a full discussion and an agreement upon which are the names most fitting, then a hearty co-operation toward having them generally used."

"The A B C of Electricity." Price, 50c. The Motor World Publishing Co., 154 Nassau street, New York City.

**FUTURE PROFITS IN ACCESSORIES**

**Price Maintenance Differences that will Affect the Trade—Growing Distinction is Observed Between Two Classes.**

Motor car accessories are undergoing a division into two major classes in relation to their being profitable or unprofitable for the trade to handle, according to a trade observer who has been keeping a watchful eye on the trend of events. This division, he declares, is growing more distinct as more accessory manufacturers become active in maintaining prices, and as patent matters in the accessory trade assume more definite form instead of being in the nebulous and confused state. Jobbers and dealers, in conscious or unconscious recognition of the improvements that are being brought about, are less inclined to bristle with indignant opposition against manufacturers' selling restrictions and requirements.

"Lacking some strong selling policy behind it, any automobile accessory is almost doomed to degenerate into a common piece of hardware or junk, worth little more than the materials that compose it and lacking the magic of profit-making for those who handle it," the trade observer declares. "At the present time all the accessories on the market are being forced into one of two divisions, which means that ultimately they must be classed with the specialized profit makers or with the general run of competitive price goods that are sold only on the basis of cheapness and which involve a trimming of profits to the barest possible margin.

"In some respects," he maintains, "the accessory end of the automobile business enjoys a great many advantages over the manufacture and sale of cars. The car manufacturers do all the pioneer work in making converts to the automobile, and the keener their competition, the more customers they create for the accessory manufacturer. Furthermore, many accessories are of a kind that by their nature and service must wear out and be renewed a number of times during the life of a car, giving the accessory manufacturer repeated sales as against single sales for the car maker.

"Things have been so flourishing with the accessory trade that almost anybody who could produce a good usable article in sufficient quantities and could make prompt deliveries, could get a profitable price for his stuff. It might not be as much as he at first would try to get, but it would be a mighty good price at that, and the dealers and jobbers, despite some cutting among themselves, would make a respectable profit. The overwhelming demand, after absorbing all the top-notch price-restricted goods, has been powerful enough to sustain prices for purely competitive goods

even where the latter have been unaided by patents, by advertising or by unusual merit or reputation. The excellent prices which the makers of the latter class of accessories have received have been chiefly a reward for their enterprise in actually having goods to deliver at a time when the demand for everything in the accessory line was disproportionately big for the supply.

"There have been a few cases of accessory manufacturers who have gone broke in producing large quantities of stuff for which there was no subsequent demand, but such instances have been remarkably rare, everything considered. Now, however, the production of accessories is increasing at such a rate that in the aggregate it gradually is overtaking the still increasing demand, and it does not take an occult seer to foresee that things are reaching a point where a lot of these accessories will be thrown into competition on price alone, and will be handled only on that basis.

"Those who have had any experience know that there is a whole lot of difference between handling goods with a sustained price and generous profit margin, and in handling goods where the price and profit are shaved down to the minimum of what competitors will do business on. All the fun of price cutting so far has been in the fact that even with the cutting there has been a good margin of profit to play on, but there is no pleasure in getting business away from the other fellow if one doesn't make a profit in it.

"Many of the jobbers now welcome anybody who can make a showing that indicates his power to control any given line of accessories, because such control will make possible an insuring of profits to those who handle the goods. One jobber told me that in the past he has spent a fortune in fighting so-called basic patents for various lines of goods and in resisting the efforts of manufacturers to dictate fixed prices, but that he now regards his policy as a mistake and is only too happy to see prices maintained by patent control.

"When the manufacturers for any particular line are able to fix prices, to punish and cut off price cutters, and to insure the profit of the jobbers and dealers who handle the goods, their products are of the kind that the trade will take pleasure in selling, as against the goods where nobody knows what the bottom price is and which represents the scantiest profit possible. This distinction between the two classes is becoming apparent, and is sure to be a big factor in determining the success or failure of a majority of the accessory manufacturers in the future."

#### Remarkable Records of Factory Drivers.

One of the requirements in New York's new motor car law is that every chauffeur must answer a list of questions promulgated by the state. These bear on his personal habits as well as his driving history, and an examination of any good sized collection

of application papers brings out some interesting facts. Recently forty-five applications were forwarded to Albany from Buffalo for men in the employ of the Pierce-Arrow Motor Car Co. That continuity of employment is more than a catch phrase at the Pierce-Arrow factory is shown by the fact that of the 45 men 33 of them have been with the company more than five years.

Some remarkable mileage has been piled up by the 45 men. Their total mileage as given in the applications for licenses is 1,943,000 miles, an average of 43,177 miles each. Seven of them have driven 100,000 miles or over, and two, being long-time members of the testing brigade, have piloted cars over more than 250,000 miles. Most remarkable of all is the fact that despite the length of time the 45 have been driving, but three of them have been arrested for speeding, and there have been but two serious accidents, an average of one arrest for every 623,866 miles and one accident for every 971,500 miles. In both accidents the drivers of the cars were held absolutely blameless and were not even arrested.

#### Fine Rumpus Follows Garage Deal.

The paying of a month's rent in advance, and subsequent refusal to sign a lease, stirred up a lot of trouble, with warrants, arrests and injunctions as accompaniments, in the little town of Ellenville, N. Y. Milton Van Keuren, who sought to lease the Wayside Inn garage, and Oscar O. Krause, owner of the garage, were the men concerned. Van Keuren paid one month's rent in advance, but when the lease was drawn he refused to sign it on account of some objectionable terms included in it. Krause then called off the deal and ordered Van Keuren and his workmen out of the garage. They refused to go, and soon after Van Keuren left town with his family for a short vacation. While he was away Krause chased the workmen out of the place. When Van Keuren returned and found what had been done, he made forcible entry into the garage, breaking locks and doors. For this Krause secured a warrant of arrest and cited him before Judge Jollic. When the officers appeared with the warrant at the Wayside Garage, Van Keuren ordered them off the premises and they went. Krause then obtained an injunction from Justice Betts restraining Van Keuren from again attempting to enter the garage, and installed himself in full possession of the garage, conducting the business as if nothing had happened. The case will be decided in the courts during the next month, but in the meantime Van Keuren is out a month's rent for a place which he did not occupy.

#### Book that Deals with Lubrication.

"While it is not realized by the automobile owners in general, it is none the less a fact that most of the troubles that send a car to the repair shop have their beginnings

in defective lubrication." So truthfully exclaims the Vacuum Oil Co., Rochester, N. Y., in a fine new booklet entitled "What the Motorist Should Know." The text is followed by a concise and lucid explanation of the origin of all the commoner lubrication troubles and how they may be remedied. And in the appendix timid motorists will find the names of their own cars tabulated, along with those of practically every other machine now extant, and recommendations as to the proper grades of Vacuum Mobiloils and greases which they should use in both winter and summer.

#### Bridgeporters Block Garage Building.

By the rapid "railroading" of an ordinance through the city council in Bridgeport, Conn., a number of property owners on Fairfield avenue temporarily have prevented the building of a big garage by the Eddy-Sherwood Carriage & Motor Co., although the ordinance also has the larger effect which prevents the construction of any garage in the city without the consent of property owners within 200 feet of the site. The Eddy-Sherwood company recently purchased land on Fairfield avenue, between Hancock and Butler avenues, but adjoining property holders objected. The building permit was held up until the property owners could persuade the council to a hurried passage of the ordinance granting them the desired protection.

#### Westchester Bankers now Whack Cars.

Imitating some of the small country bankers of the West, the members of the Westchester Bankers' Association, who guide the destinies of the small banks in Westchester county, New York state, just above New York City, have decided to use extreme caution in discounting notes for customers who want to get money to buy automobiles. In session at the Briarcliff hotel, at Briarcliff Manor, they affected to discover that the country is more or less "automobile crazy," and that it is the function of the bankers to check rash extravagance in this direction so far as lies in their power. Of course no one believes that the Westchester bankers would even try to do anything to divert money to Wall street.

#### One Cause of Noisy Clutches.

In certain types of leather-faced cone clutch, disengagement is accomplished by means of a yoke fitting into a collar on the clutch member, friction between the yoke and collar supposedly being prevented by means of two or more tiny rollers of fiber or metal. When these rollers become much worn, however, they frequently defeat their purpose to a partial degree, and become the source of considerable noise. The remedy, of course, is to fit new rollers as soon as the old ones become so much worn as to rattle or cause the clutch to bind by exerting an unequal drag upon the opposite sides of the flange.

## PLOTTING WIND SHIELD DRAUGHTS

Tests that Indicate the Best Proportions and Placing for the Screens—Reactionary Swirl Effects.

In view of the inconvenient and objectionable nature of the back draughts which so frequently are caused by the use of wind shields, it is interesting to learn that by careful study of the subject and the due proportioning of the screens to suit the form and dimensions of the car much of this drawback can be eliminated. Such, at least, is the conclusion reached by a foreign investigator who has carried out a series of experiments with the aid of single and double screen arrangements variously placed upon a test car.

As was the case when the subjects of wind resistance and the dust raising propensities of different body shapes were investigated, has been found that natural

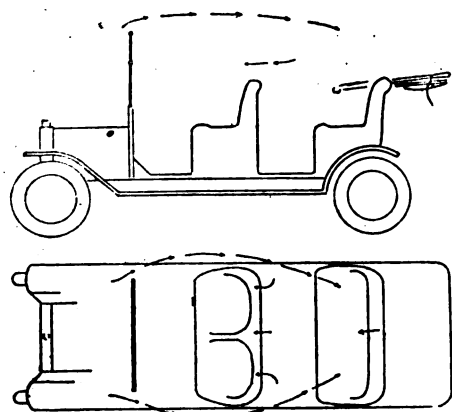


Fig. 1

winds are of very great consequence in their effects upon the draughts within the car. At the same time, as is true of wind resistance and the following air-currents, any determinations affecting conditions when the car is driven with, against or across the wind. Therefore the study of wind shield position is shown to be of considerable importance in governing the comfort of the occupants.

In the tests in question, which were made by the Automotor Journal, of London, the investigation was confined to the use of a vertical shield in front of the type which is capable of being adjusted to two different heights by means of the folding upper section and to an adjustable screen for the rear seats. The latter was of the sort which may be placed either vertically or at an angle and either directly over the back of the front seat or further to the rear. As it is provided with three leaves, it may be stretched directly across the car or folded in such a way that the outer leaves form deflectors at the sides.

In order to observe the effects of altering the arrangement of the screens a light framework, capable of being established at different points on the car was constructed, its cross members being covered with light fringes of silk. By moving the framework about and noting the deflection of the fringe under different circumstances, it was

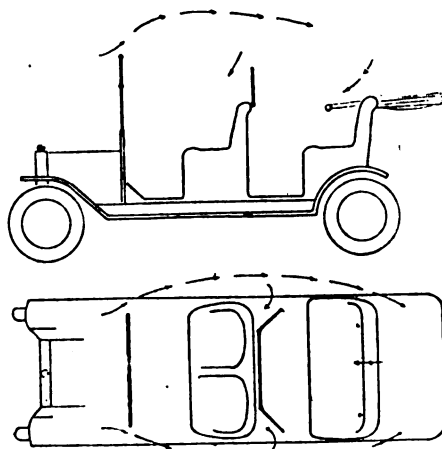


Fig. 2

possible to plot the diagrams, which are here shown, and so to determine with fair accuracy the direction of the stream lines.

In general it was found that the results obtained with the front screen in its raised and lowered positions were practically identical, save that with the upper section lowered the upper air currents were brought nearer to the body of the car than otherwise. Therefore, the diagrams shown are only those taken with the screen raised.

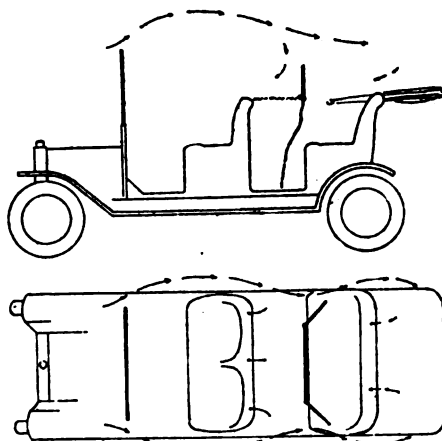


Fig. 3

Referring to the illustrations, the draught tendencies with what may be termed the standard wind shield arrangement will be seen. With the shield raised to its full height and with no rear screen, as in Fig. 1, the heads of the passengers in the rear seat are unprotected from the direct draught, while the reactionary effect serves to involve the back of the rear seat in a swirl of air, which resolves itself into a direct forward blast on the back of the heads of the driver and his companion.

The plan view also shows that while the front seat is well protected at the sides, the effect of the screen does not extend for the full length of the car, but causes the ends of the rear seat to be involved in a considerable direct draught coming around the ends of the shield.

With the secondary shield erected on the back of the front seat, as shown in Fig. 2, the effect obtained, in a general way, is anything but what would be expected, or desired. As in the first case, the passengers in the rear of the car are subjected to a certain amount of back draught, though little if any from the sides, while those in front receive a down draught on their heads. Where the outer sections of the second screen are deflected slightly, the effect is to direct a draught against the ears of the occupants of the front seats, which is neither pleasant nor wholesome.

Removing the second shield to a point nearer to the faces of the rear passengers, in the arrangement shown by Fig. 3, has the effect of decreasing the intensity of the

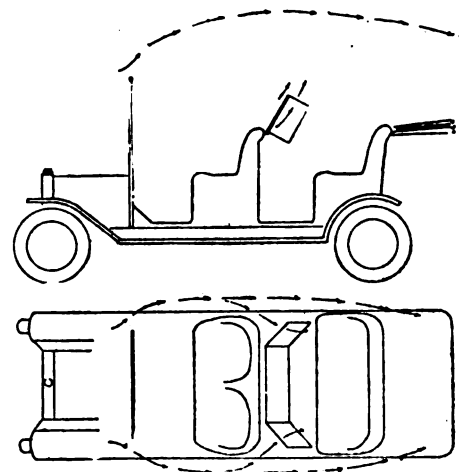


Fig. 4

draughts in the rear portion of the car, though without altering their direction materially. The draughts experienced from the front seat positions, however, are increased very materially, so that the arrangement is not one to be recommended.

Fig. 4 shows the best solution obtainable with the type of car chosen for the experiments and with the forms of wind shield used for the tests. By inclining the rear screen to the vertical and bending back the side leaves, a deflector effect is secured in both horizontal and vertical directions. The second screen here is replaced in its position on the back of the front seat, it will be observed. The conclusion reached with this arrangement is that the upward draught created by the inclined plane of the rear shield tends to neutralize the down draught caused by the front shield, thus rendering the air practically dead in the vicinity of the front seats. In the rear part of the car also the draughts appear to be minimized.

Although the effects obtained with the



top raised are not shown in the illustrations, it is stated that the arrangement given in the last of the four diagrams also proved to be the best, whether the top was up or down. This conclusion is a natural one.

It is to be deplored that the results obtained are of such a fragmentary nature. The effects of using inclined planes on the forward as well as the rear wind shield, and of employing sectional side deflectors in front, if properly observed, doubtless would shed considerable light on the subject. In a general way, however, and particularly as showing the importance of adapting the wind shield to the exact needs of the car, the results obtained are particularly suggestive and valuable.

#### Troubles Peculiar to V-Type Engines.

Engines of the V-type, though but little used in the automobile industry, are subject to one general shortcoming which is worth noting. This is manifest in a tendency for the valves on one set of cylinders to become burned and scored and for the exhaust on the same side to afford every token of excessive lubrication. This arises from the fact that, where splash lubrication is employed the tendency is for the oil to be thrown against one of the cylinders of each group in greater quantities than the other receives. Unless special provision is made in the design to guard against this tendency, there is considerable likelihood that trouble may be experienced in consequence. The obvious remedy is to arrange for baffling the cylinder which inclines to over-lubrication a little more closely than the other.

#### Quick Action When Cars Roll Backward.

All the little books designed for the consumption of motoring novices carefully explain that it is necessary to learn back steering and also that when the brakes fail on a hill, the proper procedure is to turn into the nearest curb or sand bank. What sometimes is neglected in this connection is to emphasize the importance of side-tracking the car immediately it begins to roll backward, instead of making futile attempts to check its motion while it is gathering headway. The other day a driver waited too long before cutting out of the road, with the result that when he did turn out the shock of impact was sufficiently great to overturn the car.

#### Heavier Lubricant to Reduce Smoke.

Smoky exhaust and carbon troubles in an old engine sometimes may be remedied by adopting a new and heavier grade of lubricant than that which regularly has been used. The thicker bodied oil will tend to form a better seal between the piston and the cylinder walls and so to prevent the escape of the lubricant into the combustion chamber and the accompanying formation of carbon.

## LAYS A FINGER ON THE SORE SPOT

**Commentator Deals with the Annoyance of "High Financiers" at Prodigal Farmers who Buy Motor Cars.**

"That the prodigal farmer is likely to ruin the country has been pointed out several times of late by persons whose names carry weight in the highest financial circles," ironically remarks the Saturday Evening Post. "A large class of the American people are running wild in useless extravagance; they are buying several hundred million dollars' worth of automobiles annually," said, recently, an able banker who probably owns half a dozen of those ruinous contrivances himself. He added that the farmers, whose economy had heretofore been our salvation, were now rioting in the front ranks of the wasteful crew. Another financier declared that 'the mad desire of farmers for automobiles' had lost a single Western state millions of dollars.

"No doubt, prosperity in this country has been overdone—that is, it has become so extensive that a good many of the people who create the country's wealth are now actually spending it. From the point of view of high finance that condition is dangerous; the ideal condition is one in which much wealth is produced, but its producers are unable to retain more than enough for their needs, thus leaving all superfluous spending to the manipulators of wealth, who, being comparatively few and intelligent, may be trusted to keep extravagance within safe bounds.

"Even from the point of view of high finance the situation is far from desperate. The diamond-studded, tailor-clad, touring-car farmer is pretty much a myth. A five-cent cigar is still the limit of extravagance for a majority of those who produce the country's wealth. The forthcoming census report on average farm incomes will probably cause alarmed financiers to cheer up."

#### Britishers Combatting Trade Evils.

Suffering from the progressive effects of price-cutting carried on under the guise of the division of profits, bonuses and commissions and from the inroads of co-operative owners' associations formed for the purpose of cutting out the legitimate dealer, the British automobile industry is working toward an alliance which will have for its object the protection of the dealer and the maintenance of price agreements. Just how far the project has developed is not known; but it is understood to be largely defensive in its nature, while it has been said that whatever organization is affected will be shaped somewhat along the lines which have been worked out for the several manufacturers' associations maintained by the American manufacturers.

Although the trade press has not been active in expounding the cause, United States Consul Albert Halstead, of Birmingham, is authority for the statement that already many of the most important automobile and accessory manufacturers, including several large concerns in his own district, "whose combined output is probably greater than that of any equal number of manufacturing companies in the United Kingdom," have joined the association.

The association will include the representatives of manufacturers of foreign automobiles. With the object of eliminating the co-operative associations and affording means for dealing directly with price-cutters, the rules of the association, it is said, will forbid members to supply non-members at less than the full current retail price.

#### Symptoms of Ball Bearing Breakage.

In the care of motor cars which are equipped with ball bearings in the mounting of the wheels, it is well to watch for signs of excessive looseness or end play. Although such bearings are not subject to derangement of this sort ordinarily, such play may be taken as good evidence of one or more broken balls or of deranged races. Such difficulties, though comparatively rare, should be taken care of at once, as they are apt to continue without outward token until the bearings are completely destroyed and possibly until the wheel is ready to come off. Because bearings of the anti-friction type ordinarily run for many months without requiring special attention, it is well to bear in mind that an occasional inspection is worth while on this account.

#### Indianapolis Punishes Open Mufflers.

Following the example of several other cities and states which are conducting a campaign against open mufflers, the authorities of Indianapolis, Ind., last week took the first step towards the suppression of the nuisance in that city, when Frank Hardsock, a tester for the National Motor Vehicle Co., was haled to court and assessed \$10 and costs for driving with an open muffler. In inflicting the penalty Judge Collins denounced the practice in strong terms, and said that hereafter the muffler law would be strictly enforced.

#### Body with Convertible Features.

For genuine touring purposes a foreign body builder has devised a rather ingenious equipment of the high-sided order, the rear portion of which is convertible for either passenger or luggage carrying purposes. By removing the center panel of the back seat and substituting a special form of rack the entire tonneau may be used for hauling baggage or camp paraphernalia. For sleeping purposes, the backs of the divided front seats may be swung down until they join the front edge of the rear seats, thus forming a couch the full length of the body.

**DESIGNED FOR DYNAMIC BALANCE**

**Foreign Carburetter Made to Yield a Uniform Mixture by Novel Means—Its Compact Construction.**

Perhaps no one point in carburetter design better illustrates the lack of harmony in the ideas of automobile engineers than does the form and location of the jet with respect to the float and mixing chambers. Revealing considerable thought, the conclusions of one of the more radical British designers are expressed in a manner at once striking and suggestive. His effort has been to attain what he calls a "dynamic balance" between the masses of fuel and air which are to be mingled within the throttle valve or vaporizing chamber. Other attempts along somewhat the same line have been made in the past but with totally different results.

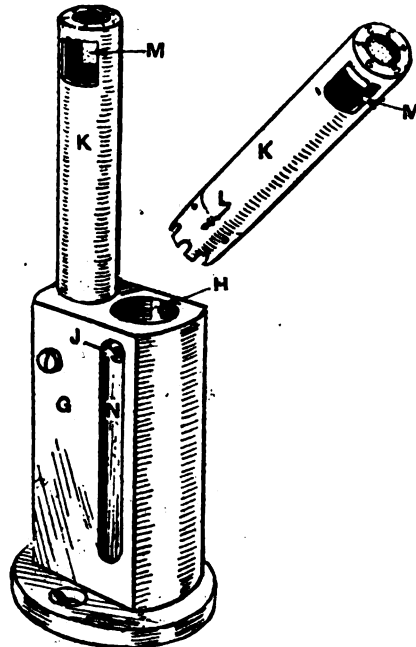
Recognizing that the difference in inertia between the air, liquid fuel and fuel vapor tends to interfere with the proper handling of the gas, an effort has been made to equalize the flow by suitably graduating the length of the fuel and air inlet passages to the mixing chamber. It is claimed that a relation between the lengths and diameters of these passages has been found such that the relative proportions flowing will be constant at all times, regardless of the actual inductive effect resulting from the suction.

This relation is obtained by making the length of the fuel passage leading from the float chamber to the mixing passage only  $\frac{1}{8}$  inch long, while the air column, measuring from the external orifice to the point at which the mingling of the two components occurs, is  $1\frac{1}{4}$  inches in length. With this relative difference of head between the fuel and air, it is claimed that perfect balance is maintained at all times. It will be appreciated, however, that to achieve such an arrangement must necessitate rather an unusual method of construction. Such indeed, is the case, and the carburetter itself, which is known as the "Welsh" and is marketed by Thompson-Bennet, Ltd., Arden Works, Heneage street, Birmingham, is remarkable in this, as in respect to the fact that it is of double-jet construction and remarkably compact.

The device is of the concentric float type, in general construction, but is distinctive in that the mixing passages, as well as the jets, are enclosed in the tube which rises within the chamber carrying the doughnut-shaped float. Furthermore, instead of being of the upward draught type almost exclusively employed hitherto, the movement of the air and fuel is downward to the throttle valve, which is located underneath the float chamber.

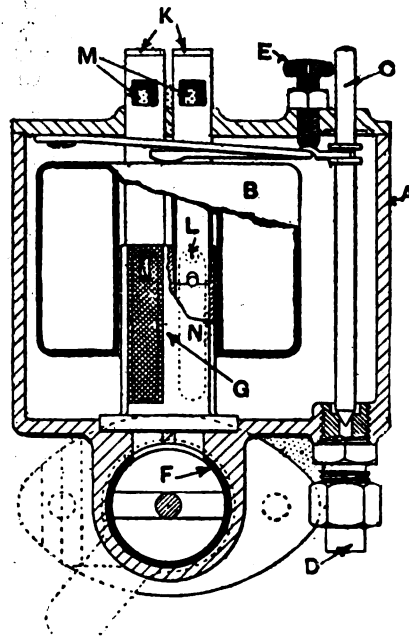
The first of the accompanying illustra-

tions, which are reproduced from the Auto-car, shows the cartridge-like construction of the jet and mixing unit. The vertical mixing column G has two bores, one for each of the two jets, one of which is in-



SHOWING TWIN MIXING TUBES

dicated at J, and which amounts more nearly to a small orifice in the side of the passage H than to a jet as the term ordinarily is applied. Fitted into the two passages by means of taper socket points are the two air columns K, one of which is shown



THE WELSH CARBURETTER

partially removed in the illustration. The base of each of these tubes is formed with a series of graduated radial orifices, which form the actual jets. By turning the columns it is possible to make either of the

orifices register with the opening J, thus regulating the quantity of fuel flow. By way of securing a return flow and also as a means of straining the fuel, gauze screens are stretched over the milled slots N, through which the fuel passes in entering the orifice of the jet.

Air to form the basic mixture enters through the square holes at the top of the tubes, shown at M, and passes directly downward, catching up the fuel as it wipes over the orifice and descending to the throttle chamber, which is directly beneath the float chamber, as already explained. The second of the two illustrations shows the arrangement to good advantage. From this it will be seen that the mixing column is assembled directly in the center of the float chamber, its relation to the throttle chamber and to the float mechanism being plainly apparent.

The throttle is so constructed that during the early part of its travel the base of only one of the two columns is uncovered, thus allowing but one of the two jets to act. Complete throttle opening uncovers the base of the second jet. When the throttle is set back to a point beyond that at which complete closure of the two jets is obtained, an auxiliary pure air port is uncovered, which provides means for cooling the engine while coasting and employing it as a brake, without necessitating any waste of fuel. Regulation of the fuel orifices is obtained externally without dismantling any part of the device. The regulation screw E serves to determine the fuel level and also is readily regulable to suit running conditions.

**Improvised Protectors for Burst Tires.**

Tire trouble resulting from bursting shoes would be less formidable, as a rule, if the motorist would bear in mind that to devise a suitable protector for the tube after the faulty member has been repaired or replaced, by no means is a severe tax upon ingenuity. On occasion a piece of a torn inner tube, an old leather boot-leg, a piece of stout canvass, or even a soft dust-cloth folded many times and laid over the tube smoothly, have been known to do yeoman service in getting a car home or to the nearest repair shop. This, of course, where no standard repair supplies are carried in the car.

**Carriage Dealers to Put on Good Front.**

With the apparent purpose of staying the general ideas that horse vehicles are on the wane or that they must give way to the automobile, the National Carriage Dealers Protective Association, which has over 4,000 members, is planning to hold the most pretentious exhibition of carriages and wagons ever held in Chicago. The exhibition is scheduled to take place at the Coliseum during the week of October 10th. The association's headquarters probably will be at the Annex.

### FRANKLIN MANAGERS IN SESSION

Gather at Syracuse for Annual Conference  
—See New Models and Demonstrations  
and Bravely Face the Camera.

District managers from all the precincts of the H. H. Franklin Manufacturing Co.'s selling territory gathered in annual conclave last week for the purpose of discussing plans for the forthcoming year and also

men is one of the new little "sixes." In catalog parlance, its carrying capacity is five passengers, but the reputation of the Franklin company is staked upon it that there were no less than 29 men in the car when the picture was taken. For the benefit of those who are able to discern only 26 heads, it is explained that three of the passengers are effectively concealed in the bottom of the tonneau.

In addition to the "capacity" test, ample opportunity was afforded for each of the

September 15th, although the first 400 feet of the main building will be completed by August 10th and will be occupied immediately thereafter. The structure is to be 1,050 feet long and 150 feet wide, with cement floors and fireproof construction. Contracts also have been let for an administration building, which will be a duplicate of the office building of the Brush Runabout Co. It will be 75 x 55 feet and two stories high, the material being white pressed brick. The Detroit plant, under



FRANKLIN SALES REPRESENTATIVES "TESTING" THE NEW LITTLE "SIX" MODEL

of investigating the properties of the new models which just have been announced. As is usual with such occasions, a great deal of time was devoted to the matching up of past experiences and not a little to certain festivities which commonly are supposed to cater only to the wants of the human creature, but which, as all automobile sales managers have come to know, really are stimulative to aggressive and progressive merchandising efforts.

But perhaps the most interesting and instructive part of the program was that allotted to the inspection and demonstration of the new models. That no small importance is attached to the stability and carrying capacity of the newly fledged product by the district managers the accompanying picture shows. The car that forms the basis for the solidly packed group of sales-

visitors to test the driving qualities of the new cars, a run of approximately 150 miles being made on the concluding day of the convention. The selling forces were taken by a roundabout route over the hills southeast of Syracuse, a dinner at Rexford Falls serving as a wayside incident. A demonstration of the road efficiency of the Franklin truck also was arranged, the truck, loaded to its full capacity, being driven over rough roads, up and down hill, and otherwise being subjected to sundry arduous tests, all of which, it may be added, it met to the satisfaction of its critics.

#### Work Started on Immense Truck Plant.

Work on the new plant for the Alden Sampson Mfg. Co. in Detroit, Mich., has progressed to a point where it is announced that the entire building will be ready by

the direction of Morris Grabowsky, will make all the 1,000 pound and one and two-ton trucks for the company, while the heavy duty three, four and five-ton trucks will be made at the plant in Pittsfield, Mass.

#### Erecting American Factory in Canada.

Actuated by the same considerations that have induced several American manufacturers of motor cars to establish branch factories in Canada, the accessory and parts makers also are taking up the matter of Canadian branch factories. The McCord Mfg. Co., of Detroit, Mich., making lubricators and other accessories, has located a branch manufacturing establishment in Walkerville, Ont., opposite Detroit, and before long will move the branch from the present leased quarters to a factory of its own.

**MOROSS AGAIN QUILTS SPEEDWAY**

**This Time it May be "for Keeps"—"Gold Brick" Story Reacts on Indianapolis Director of Contests.**

E. A. Moross, director of contests at the Indianapolis (Ind.) Motor Speedway since its opening nearly a year ago, has resigned again, this time for "keeps," it is said. Moross resigned several months ago to assume the management of a speedway project at Detroit, but was persuaded to withdraw his resignation and remain. Moross has not announced his future plans. It is said that his office will be abolished and that the duties of the position will be performed by a staff of directors.

Moross's resignation is the culmination of a series of long standing and frequently recurring rumors concerning an ever widening breach between himself and the speedway management regarding the conduct of his office. The rupture which brought about a severance of relations is said to have been in connection with the recent publication of the alleged theft of the gold plated silver brick which was laid by Governor Marshall at the completion of the new brick surface last spring.

It is stated that shortly before the July meeting, Moross felt that in order to boom the track properly and secure a degree of publicity in keeping with the premier position to which the establishment aspires, that a sensational bit of press agent work was essential, and laid before Carl Fisher a plan to have the gold plated brick which is securely chained in place "stolen." Fisher, so the story goes, opposed the scheme, being averse to having the impression get abroad that the Speedway management would resort to such deception and told Moross not to carry out the plan.

Shortly after the brick was "stolen," and Moross reported its loss to the police and offered a reward of \$200 for its recovery. Newspaper men, however, scented a "frame up," and their suspicions were confirmed when President Fisher denied that the precious brick had been stolen. Then the scribes turned loose their vials of vocabulary on Moross and his resignation soon followed.

**Former Constable Invents New Con Game.**

Having ceased to be a constable and there no longer being an opportunity for him to make money out of motorists by the "timing" method, William Bulfer, of Chicago, Ill., has taken a new means of "gathering the kale" by ostensible automobile "timing," but, unfortunately for his plans, his "Auto Timing Co., Unlimited," as he styled the enterprise, has come to grief, and he has been bound over to the grand jury on five charges of operating a confidence game. His

experience as a constable evidently was such as to tempt him to the belief that he could attempt bold things in the way of misrepresentation and deception, and still "get away with it." This time it was not on motorists that he was preying, however, but on men seeking employment and whom he enlisted to wage war on automobile drivers.

As disclosed to the police, Bulfer's scheme is something akin to the "detective bureau" game by which gullible victims give anywhere from \$5 to \$10 for ten-cent tin badges. It has an element of newness, however, and introduces a method of operation which is only made possible by conditions arising from the use of motor cars. Several of the "employees" appeared in Judge Gemmill's court and testified that Bulfer had hired them to work for his concern, which he represented was formed for the purpose of preventing automobile speeding. He required each "employee" to deposit \$10 with him as the price of a stop watch.

The men declared that they had worked at timing automobiles in the suburbs, for from one to three weeks without pay, and that when they had demanded a return of the money deposited on the stop watches they had been refused. Judge Gemmill accordingly bound Bulfer over to the grand jury under heavy bonds on the charge of being a confidence game operator.

**Lost a Finger by Waving His Hand.**

Something new in automobile accidents was provided when Louis Silverman waved his hand cheerily to an automobile that was passing him as he crossed Church street, in Hartford, Conn. The car was very close to Silverman, and when he waved he felt a twinge of pain in his hand. His cry of pain stopped the driver of the car, and when Silverman was asked what was the matter, he inquired indignantly where his forefinger was, as it was missing from his hand. A careful search disclosed the finger resting comfortably in the frame which supports the top. Silverman was given a free ride to a doctor's office, where the remnant of his finger was amputated and the hand dressed, after which the motorist and the victim of the accident were escorted to the police station. Silverman refused to make any complaint against the driver of the car, and the police captain decided no one was to blame. Upon being released, the motorist made haste to continue his journey.

**Another Matinee at Brighton Beach.**

Encouraged by the success of its matinee at Brighton Beach on Saturday, 23rd inst., at least from a box office standpoint, the Motor Racing Association has announced another function of the sort for Saturday, August 13th. The program is being arranged and it is likely that a return match between Robertson and DePalma will be the headliner on the card.

**CHAMPIONS ONE-EYED DRIVERS**

**Secretary Koenig Approves the Application of a Chauffeur with a Missing Optic—His Sage Decision.**

When a man desires to run an automobile as an employe or for hire, and happens to be woozy in one eye, it may help his case if he removes the affected eye and salts it away or wears a blinder. At least that is the idea conveyed by the decision made by Secretary of State Koenig, regarding the case of a one-eyed would-be chauffeur. Mr. Koenig, whose knowledge of everything pertaining to driving automobiles is superlative, unquestioned and unapproachable, declares that a missing eye is no hindrance to an applicant's becoming a chauffeur. In fact, he almost suggests that it is an advantage.

One who is so afflicted desired a license, and as none of Koenig's political camp followers, who are posing as examiners of chauffeurs, felt competent to deal with the problem, it was passed up to the wise and learned secretary himself, and he made short work of it.

In the sage decision which he handed down, he says:

"All marksmen in order to attain as much accuracy as it is possible for a human being to attain when shooting always close one eye. Civil engineers, in using a transit of running lines in grades and levels, always have one eye closed. One good eye is better than two defective eyes, and also better than one good eye and one defective eye.

"My interpretation of the law leads me to the conclusion that because a man has only one eye he should not be barred from making his living as a licensed chauffeur in New York or any other state. The chauffeur from Long Island has one perfect eye. He undoubtedly can see better than hundreds of drivers who have two eyes. I know many men who are blessed with full eyesight whose vision is not as clear as that of some men who have only one eye.

"The Long Island chauffeur earns his livelihood by driving an automobile. He undoubtedly is a careful driver. He knows that unless he is he will not be allowed to run a car. Therefore he takes extra precaution and with his one eye he is cautious at all times, looking out for the safety of the public.

"It is a well known fact that a person with but one arm and by the exercise of that arm attains far more strength in it than he would have if he possessed the use of both. So it is with a man with one eye. His sense of sight becomes more acute by the constant exercise of the lone eye than it would be if he had two eyes and either one was defective. I shall grant this man a permit."

### New Clubs Formed in Many Places.

Motorists of Milwaukee, Racine and Kenosha, Wis., have formed the Tri-City Good Roads Club for the purpose of keeping the roads between the three cities in perfect condition. Three thousand dollars annually are to be spent in the work.

With 25 charter members the Elwood City Auto Club has been organized in the Pennsylvania city of that name. Its officers are: President, A. C. Frey; vice-president, C. F. Buchanan; secretary, E. A. Mulcahy; treasurer, J. W. Offcutt.

The Ocean City (N. J.) Automobile Club has been formed with the following officers: President, George W. Shuster; first vice-president, Albert Fogg; second vice-president, Edward Sutton; secretary, Albert Kline; treasurer, Dr. I. N. Griscom.

The Kenton County Automobile Club is the title of a new organization formed in Cincinnati, Ohio, with the following officers: President, E. H. Croninger; vice-president, Wm. A. Kaiper; secretary, Dr. W. Wyman; treasurer, Benj. A. Adams.

The automobile owners of Ashland, Wis., have organized the Ashland Auto Club and elected the following officers for the ensuing year: President, Dr. W. T. Rinehart; vice-president, Dr. J. M. Dodd; secretary, Dr. F. X. Schlecht; treasurer, Roy Prince.

The Houston (Tex.) Motor Club has been formed with these officers: President, J. S. Bonner; vice-president, G. J. Palmer; secretary, Harvey T. D. Wilson. The directors include, beside the officers: H. C. Mosehart, E. E. Githrie, Will Jones, David F. Burks.

Fifteen of the leading automobile owners of Monmouth, Ill., have organized the Monmouth Auto Club, and elected officers for the first year as follows: President, R. Murdock; secretary, I. F. Dains. Executive committee: J. K. Parshall, Fred Weir and Mort Montgomery.

Under the name the Clarion Auto Club, motorists of Clarion, Iowa, have organized, and the following officers were elected for the first year: President, E. A. Alexander; vice-president, Dr. Tompkins; secretary, F. R. Austin; treasurer, M. A. Mickleson. Directors: U. B. Tracy, T. H. Crowe, D. H. Eyler.

The Augusta (Ga.) Outing Club has elected the following officers for the ensuing year: President, Chas. O. Heckart; secretary and treasurer, Tom L. Gardner; directors, A. S. Fitzhugh, Jont Heroldson and Dr. V. Wiley. The club will construct at its own cost two miles of high-class automobile road through the White River bottom.

### Automobiles "Rob" European Railways.

According to a cable from Paris the continental trains de luxe which run to the summer resorts are running half empty,

the reason being that the wealthy travelers who formerly patronized the railroads now are using motor cars for getting about. It is said furthermore that not only are the elite trains thus affected, but the increased use of motor cars for continental touring has resulted in the taking off of many of the special cars on the regular trains.

### Big Program for Algonquin Hill Climb.

Seekers for peace and quiet will do well to give the town of Algonquin, Ill., a wide berth on August 11th, for on that day the Chicago Motor Club is coming to town to hold its annual twin hill climb, and with 24 numbers on the card it goes without saying that the Windy City motorists will stir things up quite vigorously. Entry blanks for the annual red letter function in Algonquin's orbit have been issued, and disclose a wide range of events in which practically all classes of cars are provided for. As usual, the formula division, which is an annual feature of the club's climbs, is retained, and together with a straight time calculation will be used to evolve the winners in the seven price divisions. This really is a double header event, with separate awards under both time and formula divisions.

The piston displacement classes for stock cars are well provided for, six events being set aside for them, and this year the big guns which heretofore have had to confine themselves to the free-for-all for lack of provision in the displacement contingent, are taken care of with a class for cars between 601-750 cubic inches. These events will be decided on a straight time basis. Weight and displacement combined will determine the starters in two classes, the one being open to cars not exceeding 300 cubic inches displacement and 1,700 pounds minimum weight, and the other admitting machines up to 600 cubic inches and a minimum weight of 2,300 pounds.

Electrics were not forgotten in making up the card, one class being set aside for them, while the free-for-all with the Algonquin cup as the reward, naturally will form the stellar number.

This year there are no separate classes for amateurs, but to avoid making this omission appear like a retrogression, the committee has provided medals for the fastest amateur time in any event in which there are at least three simon pures at the wheel.

### Seven Mile Wisconsin Speedway Project.

Hoping to enlist the aid of the two terminal cities and intermediate towns in financing the project, motorists of Manitowoc and Two Rivers, Wis., are projecting a speedway to connect the two places. The cities are seven miles apart and are connected by a sand road along the bluffs of Lake Michigan. If the enterprise materializes it will be kept under club control for occasional race meets.

### Fairmount Park Race Plans Maturing.

With \$6,500 in prizes already offered and good prospects for several thousands more, the Fairmount Park 200 miles road race at Philadelphia on Saturday, October 8th, entry blanks for which made their appearance last week, should attract a classy array of talent. The blue ribbon of Pennsylvania motordom again will be a stock car contest, and will be held under the joint management of the Quaker City Motor Club and the municipal authorities of Philadelphia, this arrangement having proved mutually satisfactory in the past.

There will be three classes known as Divisions 4B, 5B and 6B respectively, which are defined by piston displacement and weight, and no cars will be allowed to compete in any class other than that to which its weight entitles it. Stock chassis having a piston displacement between 301-450 cubic inches and a minimum weight of 2,000 pounds are eligible for the first class; the second class requirements are between 451-600 cubic inches displacement and a minimum weight of 2,300 pounds, and the limit division will embrace cars between 601-750 cubic inches and weighing not less than 2,500 pounds. The carrying of dead weight as ballast is prohibited.

There will be four time prizes which are open to all classes, and are as follows: First, \$2,500; second, \$1,250; third, \$750; fourth, \$500. In addition there will be three prizes of \$500 each, which will be known as division prizes and will be competed for at the same time by the cars in the respective classes. The race will start at 12 o'clock noon. The rules provide that after four cars finish, the referee, at his discretion, may declare the race over.

### Rambler Ramblers and Their Rambles.

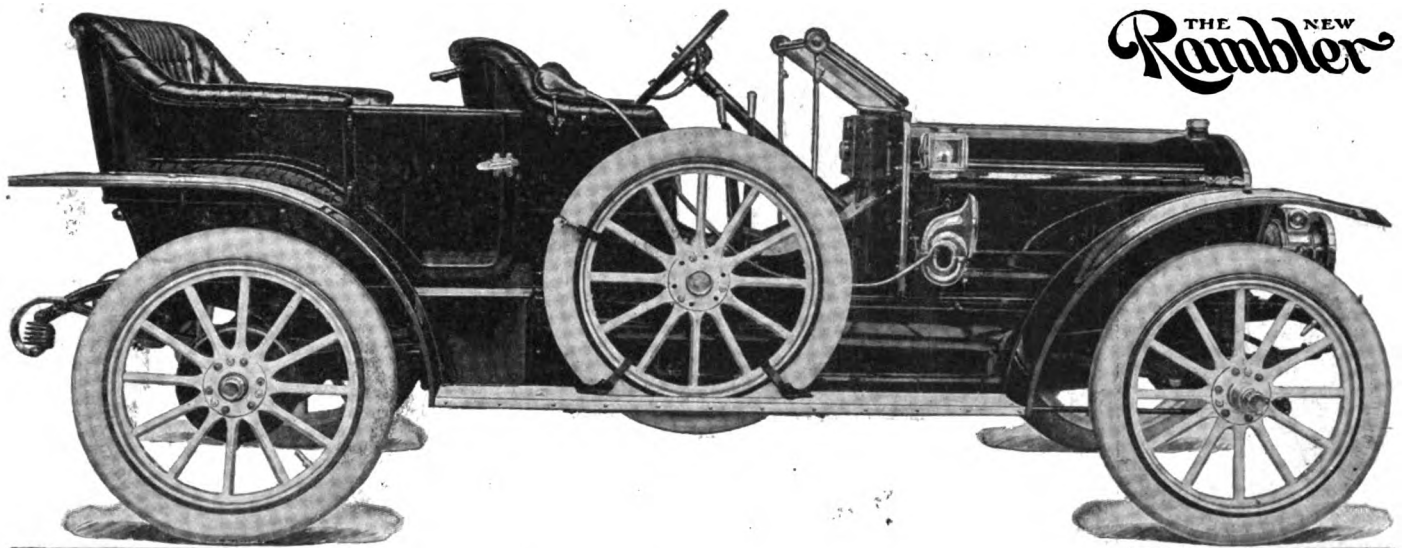
More than half the distance to the moon, or eighteen times through the earth and six times around the world—that is the remarkable record held by Ted Collier and Arthur Gardiner, two men in the employ of the T. B. Jeffery Co. at Kenosha.

Both Collier and Gardiner drove Ramblers in the first long distance endurance contest ever held in this country, that from New York to Pittsburg seven years ago.

Collier has been at the wheel practically every day of every year for the last ten, driving an average of 50 miles a day. For years he has had charge of the testing of Rambler automobiles, every one of which—aside from the engine tests on the stands in the laboratory lasting for days—is given two hundred miles of road work before it leaves the factory.

Gardiner's long distance record aggregates more than 200,000 miles, or seven-eighths of the distance to the moon. He has driven Ramblers every day of every year since the first one was made, competing successfully in a score of endurance contests and figuring prominently in the first Glidden tour ever held.





THE NEW  
**Rambler**

**T**HE Fifty-four Toy Tonneau is a mid-season New Rambler model. It is an evolution from the Close Coupled model, designed for the same demand, but a little more roomy.

Its advantages are low seats, two inches longer than usual from front to back. Seat cushions tilted and rakish seat-back to correspond. Body smaller and lighter than the touring car but tonneau roomy enough for three people of average size. Three inches more leg room in front than touring car. Rakish steering column.

With five lamps, Prest-o-Lite tank or generator, magneto and storage battery, horn and tools, \$2,250. Top with side curtains, \$100. Wind Shield \$40. Spare Wheel \$85.

**Thomas B. Jeffery & Company**

Main Office and Factory: Kenosha, Wisconsin

Branches: Chicago, Milwaukee, Boston, Cleveland, San Francisco



# BOSCH PLUGS

Bosch Quality

## \$1.00

All Standard  
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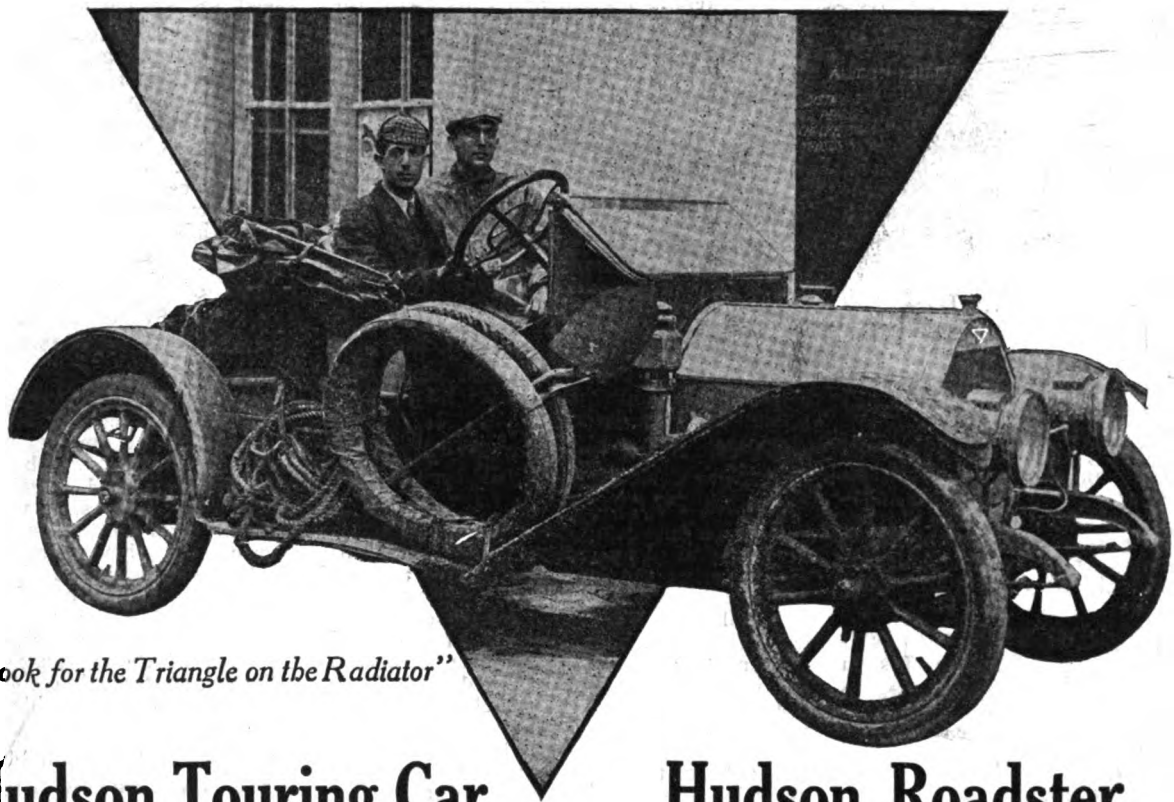
\$10.80 the Dozen

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*"Look for the Triangle on the Radiator"*

## Hudson Touring Car \$1150

## Hudson Roadster \$1000

Over 200 corporations have purchased our standard models and are using them for commercial purposes. Many of them are daily driven over roads which are a disgrace to a civilized community. Many of them are run night and day. All of them have to make good every day of the week and ***all of them do make good.***

Corporations are shrewd buyers. They buy Hudson cars:

***First***—Because of their reasonable first cost.

***Second***—Because of their mechanical excellence and their reputation for standing up under all road conditions.

***Third***—Because of the economy of their upkeep and operation.

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**Hudson Motor Car Company, Detroit, Mich.**

Licensed Under Selden Patent

## RECENT PATENTS.

961,390. Means for Locking the Steering Mechanism of Motor Vehicles. Arthur B. Walters, Abilene, Kan. Filed Aug. 21, 1909. Serial No. 513,992.

1. In a steering gear for motor vehicles, the combination with a steering shaft, of a locking sector yieldingly carried by said shaft, a pivotally held pawl, a link extending from said pawl, a pivotally secured pawl secured to said link, said pawls being held for coaction with said sector, and means to operate said pawls.

961,407. Timer. Donald W. Hare, Los Angeles, Cal. Filed Jan. 18, 1909. Serial No. 473,015.

1. In a timer, a stationary casing, terminals thereon, four segments in the casing connected with the respective terminals, said segments being staggered and each embracing more than a quarter circle, an adjusting ring revoluble in the casing, contact blocks in the adjusting ring having contact with the respective segments, a shaft, and means carried by the shaft for making contact with the respective blocks as the shaft rotates.

961,423. Carburetter. Thomas Leggett Sturtevant, Quincy, and Thomas Joseph Sturtevant, Wellesley, Mass., assignors to Sturtevant Mill Company, a Corporation of Maine. Filed July 3, 1908. Serial No. 441,858.

1. The combination with one or more carburetters or vaporizers, of a trap or well provided with a fuel discharge opening at its top and one or more openings in its side wall at a considerable distance above its bottom, so that the lower part of the chamber of the said trap or well is adapted to serve as a catch basin for surplus fuel, and a fine mesh, vertically disposed screen arranged in said chamber and opposite said opening or openings, the said trap or well providing a chamber which is independent of or additional to the mixing chamber or chambers of the carburetter or carburetters.

961,427. Pressure Regulating Device for Pneumatic Tires. Cornelius J. Brosnan, Springfield, Mass., assignor of one-half to Allen Webster, Springfield, Mass. Filed Aug. 31, 1906. Serial No. 332,810.

1. The combination, with a wheel having a pneumatic tire, an inlet valve connected with the tire, a supplementary inlet valve arranged to hold the first inlet valve open while the supplementary inlet valve is in place, an outlet valve and a spring to hold the outlet valve closed.

961,443. Tire. Reinhold Herman, Craf-ton, Pa. Filed July 20, 1907. Serial No. 384,799.

1. In a tire, an outer tube, a plurality of superposed wire layers wound circumferentially to the tube and embedded therein, each strand of a superposed layer being supported against lateral movement by two strands of the layer on which it is superposed.

961,481. Carburetter. William C. Carter, St. Louis, Mo. Filed Aug. 31, 1908. Serial No. 451,017.

1. A carburetter provided with a jet tube having its upper end closed and its lower end communicating with a supply of liquid fuel, said tube being provided intermediate its ends with a number of open ejection ports located at different levels, and means for causing a current of air to pass down-

wardly adjacent said tube so as to create a partial vacuum therein and thus cause the fuel to rise automatically in said tube and pass laterally through the ports therein, the quantity of fuel that emerges from said jet tube varying automatically.

961,553. Tire Holder and Trunk. Fred-eric S. Suthergreen, Manchester, Mass. Filed, Jan. 27, 1909. Serial No. 474,531.

1. A combined tire holder and trunk embodying a cylindrical body, adapted to fit within a detachable tire and provided with circumferential flanges at opposite sides which project beyond the periphery of the body, means adapting one of said flanges to be detached from the body, and a support for said holder fastened to the back thereof and to the vehicle and adapted to maintain the holder in an upright position, substantially as described.

964,559. Speed Indicator. Wesley Traf-ford, New York, N. Y. Filed April 8, 1904. Serial No. 202,150.

1. In a speed indicator for vehicles, the combination of an indicating device, means for actuating the indicating device to indicate a mile for each certain fractional part of a mile traveled, means for re-setting the indicating device at the end of a corresponding fractional part of an hour, whereby the indicating device is caused to indicate the average speed of the vehicle during such fractional part of an hour in terms of miles per hour, and means for indicating after the re-setting of the indicating device the speed at which the vehicle traveled during such fractional part of an hour, substantially as described.

961,590. Valve for Carburetter and Other Apparatus. Arthur E. England, Boston, Mass., assignor of one-half to James A. Yantis, Malden, Mass., and one-half to Frank P. Woodbury, and Willis Du Bois Pulver, Salem, N. H. Filed Jan. 29, 1908. Serial No. 413,475.

1. The combination, in a carburetter, of valve and two springs pressing oppositely thereon; the one spring being relatively weaker and yielding to allow opening of the valve and returning elastically to close it and the other spring being relatively stiffer and constituting a stop for the closing movement of the valve and first described spring; the relation between the springs being such that the stiffer spring is approximately incompressible by the weaker spring, forming a cushion stop for the valve but not substantially participating in the travel of the valve when the valve opens; there being means constituting a complete support for both springs adjustable in position with respect to the valve seat; and said valve being located in a passage in the carburetter, open to the suction of a motor fed by the carburetter, and the opening of the valve being actuated by said suction.

961,634. Universal Joint. Samuel C. Moorhead, Cleveland, Ohio. Filed March 24, 1909. Serial No. 485,459.

1. A universal joint comprising a central connecting member formed of two semi-circular plates having ball races on opposite sides concentric with the periphery thereof, retainers carried by the plates opposite the races, shaft sections having pockets receiving the plates and having ball recesses opposite the retainers.

961,676. Speedometer. Leon E. Blanchard, Boston, Mass., assignor to Reliance Speed-Meter Company, Boston, Mass., a

Corporation of Maine. Filed Nov. 24, 1909. Serial No. 529,729.

1. In an instrument of the class described, in combination, an inclosing case open at its top and provided with a removable cover therefor, a speedometer movement provided with a supporting frame located in said case, a support within the case for said frame, and a pin and socket connection between said frame and said support for centering said frame within said case, substantially as described.

961,588. Pyrophoric Igniting Device for Lamps of Cycles, Automobiles, and the like. Carl Friedr. Droll, Heidelberg, Germany. Filed June 1, 1909. Serial No. 499,297.

1. A pyrophoric ignition device for the purposes described, consisting of a tube adapted to fit an opening in the lamp casing and reflector, a pyrophoric piece located near the inner end of said tube, a friction piece located in said tube and movable therein, arranged to act upon said pyrophoric piece when operated, and means for operating said friction piece from the outer end of the tube, all of said parts being carried by said tube and removable with it and occupying a transverse area less than the area of the opening in the casing or reflector, so that they may be inserted or removed from the outside of said casing or reflector.

961,791. Chain Shield for Pneumatic Tires. La Verne W. Noyes, Chicago, Ill. Filed Oct. 26, 1905. Serial No. 284,515.

1. A chain having the links thereof pivotally connected together and provided with arc-shaped flanges having one end of the same outwardly curved on the pivot of the link as a center.

961,835. Speedometer. Dillwyn M. Bell, Oak Park, Ill., assignor to The Bastian-Blessing Company, Chicago, Ill., a Corporation of Illinois. Filed June 23, 1908. Serial No. 439,927.

1. In a device of the class described, the combination of a clock driven element adapted to travel at a constant speed in one direction, a variable speed driven element adapted to travel at a variable speed in a counter direction, and means adapted to be actuated by either of said driven elements and when so actuated to be released by the other element for indicating the speed of the variable speed element.

961,860. Foot Rest for Motor Vehicles. Russell Huff, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed April 16, 1906. Serial No. 312,028.

In a motor vehicle, the combination with the seat, of brackets connected with the frame of the vehicle forward of the seat, arms pivotally connected with the brackets, and a foot rest connected with and extending between the arms, said arms and foot rest being movable relatively to the seat into operative and inoperative position, the horizontal distance from the seat to the brackets being substantially equal to the length of the arms, whereby the rest may be brought close to the seat when in inoperative position, for the purpose set forth.

961,882. Wheel and Tire Therefor. George D. Moore, Worcester, Mass. Filed Nov. 15, 1907. Serial No. 402,229.

1. The combination of a wheel, and a felly having a flange extending outwardly from one side of the felly parallel to the plane of the wheel, with a removable plate on the felly opposite said flange, said plate and flange having wide-faced projections on their inner faces extending transverse to the plane of the wheel, and a tire provided with an extension in the plane of the wheel having permanent molded cavities or depressions on opposite sides thereof for receiving said projections.

961,902. Circuit Interrupter for Electric Sparking Devices. James E. Seeley, Los Angeles, Cal., assignor to High Frequency Ignition Coil Company, Los Angeles, Cal., a Corporation of California. Filed July 8, 1909. Serial No. 506,623.

1. A circuit controlling device comprising an operating shaft, movable contact means mounted to rotate with said shaft, a movable actuating member mounted to rotate with said shaft, a member mounted to rotate through a limited angle and having cam faces engaging with the contact means and with the said actuating means to store energy in the actuating means during a portion of the rotation of said shaft and to utilize said energy in the operation of the contact means.

962,059. Adjustable Sleeve for Journal Bearings. Cephas I. Shirley, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed May 25, 1909. Serial No. 498,161.

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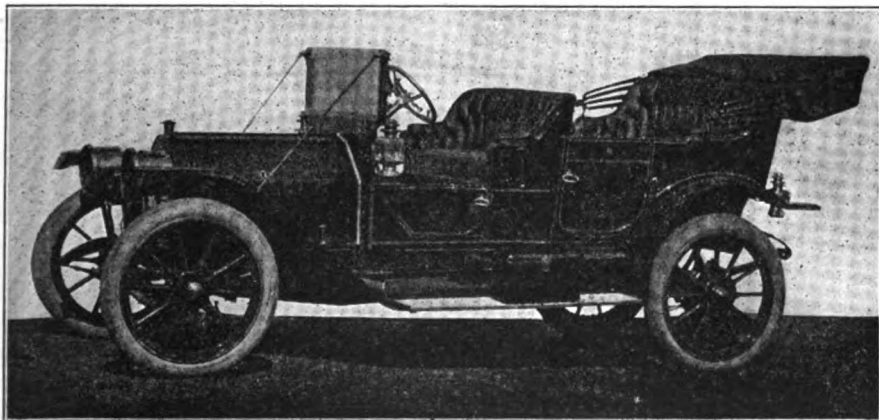
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**MICHELIN TIRE CO.  
Milltown, New Jersey**



1. The combination, with a suitable bearing, of a shaft fitted to revolve in the said bearing and having a wearing sleeve fitted to the shaft and revolving therewith in the bearing, means for holding the sleeve from rotation and end movement upon the shaft, an abutment adjacent to the bearing at one end of the sleeve, and means applied to the sleeve and to the abutment for adjusting the shaft longitudinally.

962,064. Rotary Explosive Engine. Elmer A. Thomas and William V. Ritter, St. Louis, Mo. Filed June 3, 1909. Serial No. 499,924.

1. In an explosive engine, a cylinder rotatable about a transverse axis, a mixing valve disposed about said axis on one side of the cylinder, a piston for said cylinder, a

pipe conducting the mixture from the mixing valve to the outer end of the cylinder behind the piston, an exhaust pipe leading from said cylinder behind the piston, an exhaust pipe leading from said cylinder end to a point contiguous to the walls of the mixing valve, valves for controlling the passages from the aforesaid pipes into the cylinder, a member having a cam-track disposed about the axis of rotation of the cylinder on the opposite side of the cylinder, a dog traversing the cam-track, intermediate connections carried by the engine between the dog and valves for actuating the latter with the rotation of the cylinder, and electric spark devices controlled by the dog in the travel of the latter along the cam track.

962,131. Internal Combustion Engine.

Frederick E. Dayes, Brooklyn, N. Y. Filed May 28, 1909. Serial No. 498,983.

1. An automatic adjusting means for timers of internal combustion engines, comprising a fluid pressure driven member having positive connections through which it is adapted to effect the adjustment, a fluid pressure developing member actuated by and proportionally to the speed of the engine to be timed, supplying pressure medium to said driven member, and means for wholly relieving the pressure supplied to said driven members, during the initial speed and progressive enlarging such pressure relief as the adjustment develops.

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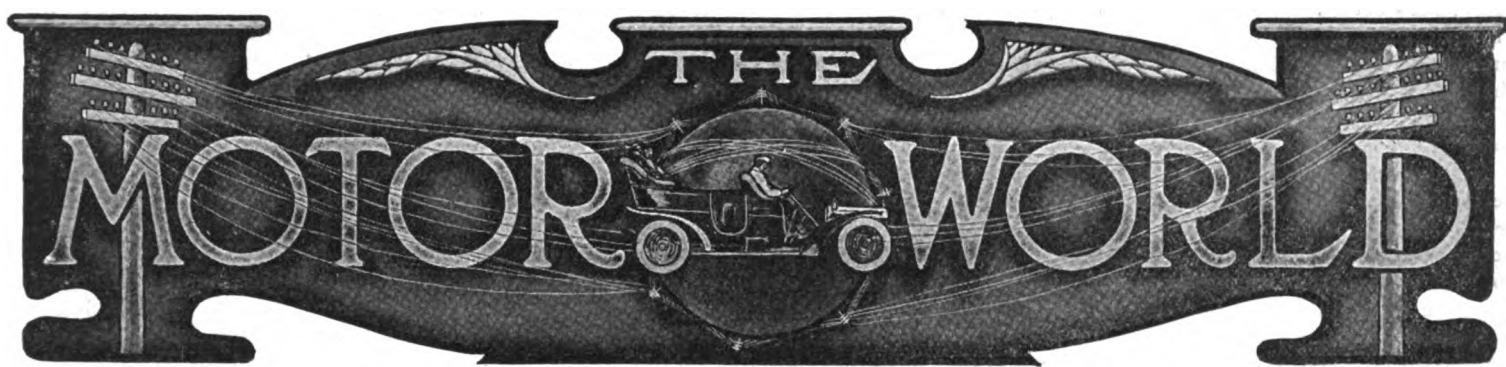
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**A. O. SMITH COMPANY, Milwaukee, Wis.**



### ABBOTT-DETROIT CHANGES HANDS

**Pennsylvania Oil Men Acquire Majority of Stock—Abbott Sells Out and Retires from the Company.**

By the purchase of the majority of the stock, a group of men in Warren, Pa., have obtained control of the Abbott Motor Co., of Detroit, Mich., which makes the Abbott-Detroit car. Transfer of the shares was effected on the 29th ult. and the owners are taking immediate possession of the property. It is announced that the present capitalization of \$250,000 is to be increased, and that the manufacturing plans of the concern will be expanded greatly.

The members of the purchasing group include C. W. Jamieson, who is slated for the presidency, and who is proprietor of the Warren Refinery Co. and president of the First National Bank, Warren, Pa.; William Muir, president of the Pennsylvania Paraffine Works, Titusville, Pa., and of the Blade Oil Works, Warren, Pa.; F. M. Knapp, president of the Jacobsen Machine Mfg. Co. and the Warren Table Works, and director in the Warren and Jamestown Interurban railway, the Allegheny Foundry Co., the Warren Trust Co., and the Western Carbon Co.; George L. Craft and Charles Henry, of Craft & Henry, Warren, Pa., oil producers and refiners; H. M. Preston and M. J. Hammers, the former a large oil producer in the Oklahoma district and the latter secretary and general manager of the Jacobsen Machine Mfg. Co., in which capacities he has evinced business and mechanical talents of a kind suited to the automobile business.

The present organization, so far as concerns the active end of the business, will remain unchanged, except that Hammers will remove to Detroit and join John G. Utz, A. P. O'Connor and J. B. Phillips in the management. The Abbott company was organized in July, 1909, and the control was held by Charles D. Abbott and F. R. Poss. Abbott, in retiring from the com-

pany, indicates that he will give himself a long vacation before again engaging in the automobile business.

### Rutherford Has a Merger Scheme.

With the Rutherford Rubber Co., of Rutherford, N. J., as its nucleus, a \$5,000,000 project is on foot, styled the American Motors Co., for the combination of the tire factory with two or more automobile factories, an engine works, a body factory and a parts factory. Stockholders of the rubber company have been offered share for share exchange of their holdings for the shares of the Motors company, and it is indicated that a majority already are pledged to the exchange. The stock of the rubber company will require \$600,000 of the holding concern's shares, and of the \$4,400,000 balance, part is to be used for absorbing constituent companies and a part will be offered for sale. The officers of the Rutherford Rubber Co., including A. C. Wescott, president; Spencer Welton, vice-president, and Joseph Miller, secretary, are the leading spirits of the enterprise.

### Simms to Build American Factory.

The Simms Magneto Co., Inc., of New York, which recently was incorporated with \$1,000,000 capital, has bought a site at Bloomfield, N. J., where it will build a two-story concrete factory. The building work is to be commenced this month, and the factory is scheduled to be in full operation by next February in the manufacture of Simms magnetos and ignition devices, which heretofore have been made only in England and France. The company states that the factory will employ over 1,000 men.

### Krit President Sells His Interests.

Claude S. Briggs, president of the Krit Motor Car Co., of Detroit, Mich., has sold his interests in the company to the other stockholders and has retired. W. S. Piggin, one of the men prominent in the organization of the company, succeeds him as president, while Kenneth Crittenden, designer for the company, assumes the vice-presidency. B. C. Laughlin retains the office of secretary and treasurer.

### CUT MEASURE AS WELL AS PRICE

**Garage Proprietor Arrested for Gasolene Shortages—Trapped by Inspectors—His Appeal to "Wise" Chauffeurs.**

Revealing some of the "tricks of the trade" as to short measure in selling gasoline and in attracting chauffeurs who know what it means to have their "mitt out" for commissions and rake-offs, two arrests were made in New York City on Monday of this week on a complaint that short measure was being given at the Garage De Luxe, 55 East 108th street, the proprietor of which, Edward Underhill, and a negro employe are held for trial. Their arrest followed two visits to the garage by a municipal automobile equipped with a special measured tank of exactly ten gallons capacity, and for which Inspector Mills and Morgan, of the bureau of weights and measures, on each occasion bought ten gallons of gasoline from the garage but received only eight and one-half gallons on the first visit and eight gallons and one gill on the second.

The complaint against Underhill also was accompanied by an affidavit from William H. Meyers, a former employe of the garage, alleging that he had told Underhill that the gasoline pump was giving short measure, and that Underhill told him to "forget it" and to give full measure only when a customer kicked. Meyers further declares that Underhill had told him to "Skin them a little."

While most of the garages have been selling gasoline for 20 cents a gallon, Underhill has been charging only 14 cents, and there has been no little curiosity as to how he could do it. As a result of suspicions as to his method, the Garage Owners' Association co-operated with Commissioner Driscoll, of the bureau of weights and measures, in discovering whether or not short measure was the answer. Underhill declares that the prosecution is part of a plan of other garage owners to put him out

of business because he sells gasoline cheaper than they do, and explains the short measure given the inspectors by saying that the negro boy who measures it made a mistake in counting the number of gallons.

Highly suggestive of how garages of a certain class cultivate relations with chauffeurs, who in some mysterious way have accessories to dispose of or who are out to "get theirs" in percentages or commission, the *Garage De Luxe* is responsible for a form letter, which, according to the attorney for the Garage association, Underhill has given circulation among the chauffeurs. Some of the entertaining and illuminating extracts from the letter are as follows:

"We make it a point in our business to always keep our word with a chauffeur. He can always depend on us. If we promise him a commission or a percentage or a job he always gets it. You would be surprised to learn what a lot of money we have paid out to wise chauffeurs who always pull with us and nobody else.

"If you know of any tires, speedometers, tubes, horns, lamps, or tools for sale, come and see us. We will buy for spot cash and you get yours.

"Remember, you always get yours.

"We have helped many a down-and-out chauffeur when out of a job.

"If you know of anyone about to buy a new car, bring him to us and get yours.

"Keep your eyes open and inquire around and we shall soon be making money together.

"Remember, that Underhill is always the friend of the chauffeur, and always keeps his word and makes good."

#### Combine Absorbs Four Cab Concerns.

Combining four of New York City's smaller taximeter cab companies and a stable company operating horse drawn vehicles, the Cab & Taxi Co., of New York City, has been formed, with a capitalization of \$2,500,000. The companies that are included in the merger are the New York Livery & Auto Co., the Taxi Service Co., the Club Taxi Co., the Union Taxicab Auto Service Co. and the Moulton Stable Co. Allan Lexow, of the New York Auto & Livery Co., is the president of the merger, which claims to have 400 automobile cabs and 700 horse drawn vehicles. The motor cabs will be concentrated in one garage at 142 East Thirty-first street, while the horse drawn equipages will have their headquarters at the stable at 252 West Fortieth street.

#### Weed Starts Suits in Minneapolis.

Evincing no "let-up" in its campaign against infringers of the patents relating to tire chains, the Weed Chain Tire Co., of New York City, has instituted damage suits and injunction proceedings against another group of defendants, this time in

Minneapolis, Minn. The Weed patent monopoly on tire chains is based on the so-called Parsons patent, No. 723,299, which is owned by the Weed company and which broadly covers non-skid devices separate from the tire itself.

Since the sustaining of the patent by Judge Sanborn, on June 4, in the United States Circuit Court for the Northern District of Illinois, Eastern Division, Seventh Circuit, and the obtaining of injunctions against the Excelsior Supply Co. and the Motor Appliances Co., a wide campaign of prosecution has been undertaken, and a number of injunctions have been obtained. The suits in Milwaukee are against the Morgan & Wright Co., C. S. Marshall, Edwards A. Williams, the United Motor Supply Co., George H. Riebeth, P. G. Nohoff and C. T. Mortonson.

#### Handley a U. S. M. Vice-President.

J. I. Handley has been elected a vice-president of the United States Motor Co. He is a Texan, and was in the clothing business prior to going into the automobile business three years ago; when he organized the Maxwell-Briscoe Handley Co., of Dallas, Tex., to distribute Maxwell cars in the Southwest. Two years ago he was made district manager for the Maxwell-Briscoe Motor Co., with offices at the company's plant at Newcastle, Ind. Later he went to Chicago as a district manager, where his record has resulted in his being transferred to the New York office as a vice-president.

#### Carmer and LaDue to Make Cars.

After an experience as New York City agents for three makes of unlicensed cars, J. M. Carmer and Charles La Due, together with C. C. Snyder, of New York City, have formed the L. C. S. Motor Co., which has taken a factory in Fort Wayne, Ind., and is to manufacture a 40 horsepower car selling at \$1,560. Carmer is president of the concern, with La Due as vice-president. Snyder the secretary and E. C. Walker is treasurer. The concern temporarily is located in the old Pape windmill factory on High street, Fort Wayne, but plans to build a larger factory of its own.

#### Company Formed for Hughes' Magneto.

For manufacturing and exploiting an unusual magneto invented by D. B. Hughes, of Cleveland, O., a company has been formed which is to be known as the Lawton-Hughes-Lehman Co., and the product of which is to be styled the L-H-L magneto. Dr. H. A. Lawton, of Warren, O., and J. H. Lehman, of the J. H. Lehman Mfg. Co., New York City, are the associates of Hughes in organizing the enterprise.

#### Ward is Benson's Successor at G & J.

Richard Ward has been selected secretary and treasurer of the G & J Tire Co., of Indianapolis, Ind., succeeding Everett S. Benson, who resigned to become secretary of the Hartford Rubber Works Co., at Hartford, Conn. Ward has been with the Rubber Goods Mfg. Co. for about 14 years, serving in different capacities for several of the subsidiary companies before going with the G & J company.

#### Changes in Lozier Organization.

Several changes in the organization of the Lozier Motor Car Co. are scheduled to take effect when the general offices of the company are removed to Detroit, Mich., on October 1st. F. C. Chandler, formerly manager of the western sales agencies and foreign department, has been elected to the vice-presidency of the company, and will be in charge of the sales department. C. A. Emise, manager of the New York City sales headquarters, will resign that office to take charge of a new department of publicity and advertising. W. S. M. Mead, manager of the eastern sales agencies, succeeds Emise as New York manager, and also will have charge of the foreign department.

#### Will Produce Valve Seating Tools.

The Valve Seating Tool Co. has been organized in Southport, Conn., and has commenced the manufacture of portable electric valve seating tools, including an equipment designed for garage service and having a flexible shaft for valve seating and drilling in inaccessible places. B. A. Bulkley is president of the company and J. W. Perry is treasurer, while William D. Sherwood is the mechanical engineer of the concern.

#### Moves Selling Office to Wilkes-Barre.

The Matheson Automobile Co., which handles the factory output for the Matheson Motor Car Co., of Wilkes-Barre, Pa., has removed its headquarters from New York City to Wilkes-Barre, where C. W. Matheson is in charge. The salesrooms at 1886-88 Broadway became a distributing branch, with George H. Duck in charge as New York sales manager, while D. C. MacKay is made head of the accounting department.

#### E-M-F Declares \$250,000 Dividend.

The E-M-F Co., of Detroit, Mich., has declared a semi-annual dividend of \$250,000 on its \$1,000,000 capital stock. The dividend was decided upon at a meeting of the board of directors in New York City, and the checks are being sent to stockholders this week.

#### Forbes Goes with the Hudson Forces.

Thomas P. C. Forbes, Jr., who at one time was prominently identified with the Overland, has joined the sales organization of the Hudson Motor Car Co., of Detroit, Mich. He will act as a special representative or "ambassador" of the company.

## JUNE A BOOMING EXPORT MONTH

**Shipments of Cars and Parts Almost Reach Two Million Mark—South America's Remarkable Increase.**

With only one of the fourteen geographical divisions taking a smaller amount than in the same month of the preceding year, the export figures for June, 1910, have established another high water mark. Fully \$1,894,805 worth of automobiles and parts left this country for foreign markets, as compared with \$1,115,864 in June, 1909, the cars numbering 984 and 577, respectively.

In the list of buyers British North America still occupies the premier rank with \$661,625 worth, as against \$287,901 in the same month of last year. Great Britain, however, crowds her prosperous colony for first place, her own imports of American cars amounting to fully \$617,371, as compared with \$487,266 in May, 1910, or \$436,276 in June, 1909. The third largest purchaser was France, with \$241,500, an increase of over 25 per cent. over the figures for June, 1909, when only \$178,488 worth of cars were imported by it. The division Other Europe, which for several months has been a heavy buyer of American made automobiles, accounted for \$129,525 worth, as compared with \$58,336 in June, 1909. Remarkable gains were shown by South America, which increased its purchases over 452 per cent., the figures being \$8,382 and \$46,209.

The figures for the twelve months ending June, 1910, show substantial gains for every one of the fourteen divisions, which gains in some cases amounted to as much as 200 per cent. British North America leads by a big margin, its imports of American cars amounting to \$4,383,487, as against \$1,692,980 in the same period of last year. Great Britain again is second with \$2,656,214. The total figure for the twelve months was \$11,190,220, compared with \$5,992,200 for the previous corresponding period, while the cars numbered 5,942 and 2,607, respectively. The record in detail:

	June		Twelve Months Ending June		
	1909	1910	1908	1909	1910
Automobiles .....	\$1,046,856	\$1,638,321	\$4,656,991	\$5,387,021	\$9,548,700
Parts of .....	69,008	256,484	620,856	605,179	1,641,520
Automobiles and parts of—					
Exported to—					
United Kingdom .....	436,276	617,371	1,796,609	1,812,091	2,656,214
France .....	178,488	241,500	692,365	661,525	825,904
Germany .....	46,454	48,006	178,914	141,056	275,241
Italy .....	26,666	18,163	247,357	241,660	337,614
Other Europe .....	58,336	129,525	186,968	329,170	550,414
British North America.....	287,901	661,625	951,386	1,692,980	4,383,487
Mexico .....	18,074	39,106	401,617	387,446	540,325
West Indies and Bermuda.....	6,372	7,335	250,201	255,158	413,888
South America .....	8,382	46,209	220,644	143,730	342,767
British East Indies.....	452	2,706	29,510	23,853	53,931
British Australasia .....	27,616	30,638	155,722	138,871	350,193
Other Asia and Oceania.....	11,852	35,619	135,938	101,048	294,592
Africa .....	5,016	13,531	7,329	41,428	114,514
Other countries .....	3,979	3,471	23,287	22,184	51,136
Total.....	\$1,115,864	\$1,894,805	\$5,277,847	\$5,992,200	\$11,190,220

## Empire Auto Supply in Bankruptcy.

The Empire Auto Supply Co., 1876 Broadway, New York City, has been petitioned into bankruptcy, the action being against Daniel E. Hydecker, the proprietor. The petitioners are the Republic Rubber Co., \$546; Columbia Lubricants Co., \$15, and Smith & Haines, \$99. It is alleged that Hydecker is insolvent, made preferential payments and permitted the Continental Caoutchouc Co. to obtain a judgment for \$240, on which a city marshal took possession of the store. Judge Hand has appointed Charles L. Moreau as receiver and has restrained the city marshal from interfering with the property or the receiver.

## Indiana's Receiver to Re-Open Plant.

A special committee of the creditors of the Indiana Motor Car Co., of Franklin, Ind., has decided that the factory, which was closed on account of the company's difficulties, should be reopened again as soon as possible. The Security Trust Co. of Indianapolis, receiver for the concern, will apply to the court for an order to open the plant and to obtain funds to operate it. The company was putting through a number of Continental cars when it was closed.

## Steely Proposes Various Products.

Proposing to build two-cycle engines, steering gears of new design, pneumatic tires of leather and canvas, and convertible type motor cars, the Steely Auto Engine Co. has opened offices in 407-9 Chamber of Commerce building, Detroit, Mich. The company has been incorporated for \$150,000, with the following officers: W. J. McWain, president; M. G. Delaney, vice-president and general manager; E. D. Sowden, secretary; J. J. Marks, treasurer.

## Shock Absorber Maker a Bankrupt.

Charles M. Green, of Boston, Mass., a manufacturer of automobile shock absorbers and other accessories, has filed a petition in voluntary bankruptcy in the United States District Court. His liabilities are \$26,603, of which \$20,987.75 is unsecured, while the assets are scheduled at \$447.75.

## BALK PROBING OF TIRE SECRETS

**Gilbert and Bennett Obtain a Stay of Moto Bloc's Proposed Examination—Involves Further Delay.**

Again the baring of the secrets of the Dealers' Protective Association and the disclosure of the agreement among the tire manufacturers as to the elimination of price cutters from the selling list has been delayed in consequence of the resistance of Lee M. Bennett, the manager of the association, and Joseph W. Gilbert, of the Continental Caoutchouc Co., to the attempts of the Moto Bloc Import Co., of New York, to compel them to undergo an examination. The examination was scheduled for Tuesday of this week, but Bennett and Gilbert succeeded in obtaining another stay, which temporarily relieves them of the necessity of answering the questions which the Moto Bloc lawyers have prepared.

After the Moto Bloc company, through its president, Leon D. Kaufman, had obtained from Supreme Court Justice Giegerich an order for the examination of Bennett and Gilbert before trial, in order that Kaufman might obtain information concerning the association as an aid to his bringing suit against it under the Donnelly anti-monopoly law of New York state, Bennett and Gilbert obtained a stay from Justice Ford. The propriety of the order was argued before Judge Ford and he subsequently overruled their motion that the order be vacated. The actual examination then was scheduled for Tuesday, 2d inst.

The hearing did not take place, however, as Bennett and Gilbert carried the matter to the Appellate Division. Kaufman's attorneys, not to be balked in their proposed inquiry, have filed a motion before Judge Clarke to have the stay vacated, in order that the examination may proceed and that they may compel Gilbert and Bennett to produce the minutes and records of the Association and supply the facts as to its inside workings. Judge Clarke has not yet passed on this motion, the fate of which largely will determine whether the examination ultimately will take place on the lines proposed by the Moto Bloc attorneys in their investigation.

## Importation of Cars Declines.

Decline in the importation of foreign motor cars into the United States is disclosed in the record for the twelve months ending with June, as compared with the fiscal year ending with June, 1909. The number of cars fell from 1,624 to 1,473 and the value from \$2,905,391 to \$2,851,446. During the month of June the imported cars numbered 114, with a value of \$233,229, as against 131, with a value of \$246,291, during June a year ago.

**THE WEEK'S INCORPORATIONS.**

Wilmington, Del.—Federal Motor Co., under Delaware laws, with \$400,000 capital; to manufacture and deal in motor propelled vehicles.

Boston, Mass.—Boston Garage Co., under Massachusetts laws, with \$50,000 capital; to maintain a public garage. Corporator—J. D. Smith.

Detroit, Mich.—Steeley Auto Engine Co., under Michigan laws, with \$150,000 capital; to manufacture automobile engines. Corporators—M. G. Delowey, Chas. M. Steeley.

Cleveland, O.—Kissel Kar Co., under Ohio laws, with \$10,000 capital; to deal in automobiles and conduct a garage. Corporators—E. H. Put, A. Lezius, E. E. Gott, W. B. Davis.

Chicago, Ill.—Tansill Motor Service, under Illinois laws, with \$1,000 capital; to operate automobiles for rent and hire. Corporators—R. E. Tansill, Mary E. Tansill, Charles M. Rapp.

Nashville, Tenn.—Southern Automobile League, under Tennessee laws, with \$100,000 capital. Corporators—J. E. Lea, Geo. W. Blair, R. Mount Beattie, J. J. Smith, R. B. C. Howell.

New York City, N. Y.—Ethylight Co., under New York laws, with \$350,000 capital; to manufacture lamps and lighting devices. Corporators—R. E. Taylor, R. C. Shaal, J. V. Usera.

Plainfield, N. J.—Automobile Distributing Co., under New Jersey laws, with \$2,500 capital; to deal in automobiles. Corporators—A. B. Laing, A. Milne, H. W. Marshall, E. M. Laing.

Newark, N. J.—Wallace-De Wilde Co., under New Jersey laws, with \$10,000 capital; to manufacture automobiles. Corporators—Henry A. O'Brien, John B. Wallace and Herbert De Wilde.

Danbury, Conn.—Green Auto Co., under Connecticut laws, with \$30,000 capital; to manufacture automobiles and parts. Corporators—John W. Green, Samuel E. Ryder, Clayton G. Haviland.

Jackson, O.—Jackson Spoke & Rim Co., under Ohio laws, with \$3,000 capital; to manufacture automobile and carriage wheels and parts thereof. Corporators—John Robbins and others.

Madison, Wis.—Ritter Automobile Co., under Wisconsin laws, with \$25,000 capital; to manufacture, deal in and repair automobiles. Corporators—H. R. Ritter, J. C. Harper, Homer Z. Webster.

Boston, Mass.—American F. N. Co., under Massachusetts laws, with \$20,000 capital; to do general automobile business. Corporators—Earle L. Orrington, Henry H. Wilcox, Daniel B. Ruggles.

Portland, Me.—Eastern Blaugas Co., under Maine laws, with \$1,750,000 capital; to manufacture an illuminant known as

Blaugas. Corporators—C. E. Eaton, A. F. Jones. No capital has been paid in.

Rome, N. Y.—Stevens Mfg. Co., under New York laws, with \$50,000 capital; to manufacture and sell carburetters, motors and automobile supplies. Corporators—S. B. Stevens, A. L. McAdam, T. I. Wetzel.

Fitchburg, Mass.—Bickford Auto Livery Co., under Massachusetts laws, with \$10,000 capital; to do general automobile business. Corporators—O. E. Bickford, Richard B. Lyon, Ernest C. Ford, Richard C. Ford.

St. Paul, Minn.—St. Paul Independent Auto & Garage Co., under Minnesota laws, with \$100,000 capital; to deal in automobiles and maintain a garage. Corporators—J. A. Hedlund, Lewis Lee, W. A. Bergen.

Toledo, O.—Toledo Timetest Tire Co., under Ohio laws, with \$10,000 capital; to manufacture automobile tires. Corporators—E. H. Winkworth, F. W. Coughling, F. E. Miller, H. W. Isenberg, Charles Weirich.

Cleveland, Ohio—Cleveland Motor Truck Mfg. Co., under Ohio laws, with \$250,000 capital; to manufacture commercial motor vehicles. Corporators—W. B. Stewart, G. M. Cottrell, H. E. French, F. C. VanCleaf.

Newark, N. J.—Commercial Maintenance & Motor Co., under New Jersey laws, with \$100,000 capital; to operate automobiles for rent and hire. Corporators—Robert O'Gorman, Samuel A. Halsey, George D. O'Gorman.

Westbrook, Me.—Westbrook Garage & Machine Co., under Maine laws, with \$10,000 capital, of which \$300 has been paid in; to manufacture, deal in and repair automobiles. Corporators—John T. Skillins, Alexander Speirs.

Akron, O.—Automobile & Supply Co., under Ohio laws, with \$10,000 capital; to deal in automobiles and accessories. Corporators—George S. Patterson, H. A. Stahl, E. J. Thorbaben, F. C. Carroll, C. P. Colley.

Brooklyn, N. Y.—Cooper Auto Exchange, under New York laws, with \$25,000 capital; to deal in new and second-hand automobiles. Corporators—Charles C. Cooper, James H. Lent, William O. Lent, Herbert A. Miln.

Asbury Park, N. J.—Aero & Motor Club of Asbury Park, under New Jersey laws, with \$25,000 capital; to conduct automobile and aeroplane exhibitions and races. Corporators—Geo. W. Pittenger, Alonzo R. Parsons, James G. Warner.

New York City, N. Y.—Lovelace Aeroplane and Motor Co., under New York laws, with \$25,000 capital; to manufacture and sell motors, engines and self-propelling vehicles. Corporators—H. Amerman, F. W. Marshall, E. M. Morrison.

New York City, N. Y.—Cab & Taxi Co., under New York laws, with \$2,500,000 capital; to consolidate and take over the taxicab service of several taxicab companies and

livery stables of New York. Corporators—Emil Kaestner, George B. Handy, Manuel Fernandes, Frederick Reis, Robert Gerbracht.

**Increases of Capital.**

Indianapolis, Ind.—Stutz Auto Parts Co. increases capital from \$10,000 to \$50,000.

Moline, Ill.—Velie Motor Vehicle Co. increases capital from \$400,000 to \$600,000.

Chicago, Ill.—F. A. L. Motor Co. increases capital from \$200,000 to \$900,000.

Gloversville, N. Y.—Gloversville Garage Co. increases capital from \$15,000 to \$40,000.

Toledo, O.—Willys-Overland Co. increases capital from \$2,000,000 to \$6,000,000.

Cleveland, O.—Western Reserve Motor Car Co. increases capital from \$50,000 to \$100,000.

Chicago, Ill.—Excelsior Motor & Mfg. Co. increases capital from \$60,000 to \$250,000.

**Ajax-Grieb Managers Meet at Trenton.**

Gathering from all parts of the country the prominent men in its selling force, and giving them opportunity to see what actually is being done at the factory and to exchange ideas for the common good, the Ajax-Grieb Co. held its second annual convention of branch managers at the factories in Trenton, N. J., on Wednesday to Friday of last week, 27th, 28th and 29th ult. Every phase of the business was given attention, and suggestions meeting with the favor of the majority will find their way into the sales policy for Ajax tires next year. Those in attendance at the convention included William G. Grieb, president; L. P. Destribate, vice-president; Harry Grieb, treasurer; H. W. Stimpson, assistant secretary-treasurer; R. S. Ireland, sales manager; Horace De Lisser, director and former president; F. S. Cutler, New York branch manager; A. H. McIntyre, Boston; Joseph Kier, Philadelphia; H. M. De Silva, Chicago; C. R. Van Auker, Detroit; F. S. Pierce, Denver; J. H. Huziker, Minneapolis; Charles Sterne, Atlanta; E. Storms, Jr., James Neville, Charles Towns and W. J. Jackson, cashier and auditor.

**Palmer & Singer Straightens History.**

Its name having been brought up in connection with the earlier history of the Matheson Motor Car Co., of Wilkes-Barre, Pa., by reason of the former relations existing between them, the Palmer & Singer Mfg. Co., of New York City, is taking steps to correct any impression that it repudiated its contract with the Matheson company in 1908, and explains that the Matheson makers canceled the contract following a refusal of Palmer and Singer to accept the 1908 cars until certain necessary alterations were made. The factory, it is explained, later settled a suit brought by Palmer and Singer, by the payment of a compromise amount.



**IN THE RETAIL WORLD.**

Under the style the Palatka Auto & Supply Co., a new company has been formed in Palatka, Fla. T. J. Barnett is the president of the concern.

Theodore Young, of Syracuse, N. Y., is building a garage and salesroom at 207 Noxon street in his home town. Peerless automobiles will be featured.

Stanley Horner, who recently took the agency for the Cole car for Washington, D. C., has leased a salesroom and garage. It is located at 1333 14th street, northwest.

The Codman Square Garage, Dorchester, Mass., was destroyed by fire last week. The entire building, 635-637 Washington street, was gutted, the damage amounting to \$10,000.

The Anderson Carriage Co. has added a garage to its building at 188 Madison street, Evanston, Ill. The new building is one story high, 100 feet square, and will cost about \$5,000.

The Ryan Motor Co. is the style of a new company which has established a salesroom at 1120-1122 Locust street, Des Moines, Ia. Chalmers cars will form its main stock in trade.

The Utah Motor Car Co., Salt Lake City, Utah, has moved into its new quarters on State street, where it will continue to handle Buick cars. Packard trucks also will be sold by the concern.

Cook & Wright, who have conducted a garage on North Main street, Sherbourne, N. Y., have dissolved partnership by mutual consent. J. H. Wright will continue the business under his own name.

D. Vannatte Kennedy, owner of the Springfield Garage, in the Illinois city of that name, has disposed of the Hupmobile agency to Stewart Allen. Kennedy probably will join the Buick forces at Detroit.

George A. Harvey has leased the foundry building on Chapel street, Lewiston, Me., and is transforming it into a garage and repair shop. The building is two stories high, fireproof, and covers over 4,000 square feet.

The Western Motor Supply Co., recently organized at Minneapolis, Minn., has opened offices and salesrooms at 10th street and Nicollet avenue, where it will handle accessories. R. A. Steckbauer is president of the concern.

Under the style the Klemme Auto Co. a new concern has opened up in Davenport, Ia. Its salesrooms are located at 106-114 Brady street, where Oldsmobiles will be shown. Louis Otto is the sales manager of the new firm.

Julius Debits, of Chicago, Ill., has purchased the Overland Garage at 113 North 40th avenue and will act as the Overland distributor for that part of Chicago. Before entering the automobile selling business he was secretary of the John Hem-wall Co.

The E-M-F Co. has leased the Kimball garage at 2026-28 Farnam street, Omaha, Neb. The company formerly was called Berger Auto Co., but recently was made an E-M-F branch. The Kimball company has a new garage across the street from its old location.

Intending to establish service stations in New York City along the line of its stations in Detroit and Chicago, the Anderson Carriage Co., makers of the Detroit electrics, have opened a New York branch at Broadway and 18th street. Albert Weatherby is in charge.

The Consolidated Motor Sales Co. is the style of a new company which just has opened up in Los Angeles, Cal., at Nos. 1216-1218 South Olive street. Ray Costerisan, a former mechanical engineer, is general manager of the firm, which will specialize in Marathon cars.

George W. Stephens and Fred S. Copley, agents for the Cole car in Chicago, Ill., have added the Clark car to their line, and have incorporated under the style the Stephens-Copley Co. Their territory embraces all of Illinois and Wisconsin, and parts of Iowa, Indiana and Michigan.

E. E. Tolksdorff, an American resident of Nueva Gorona, Isle of Pines, Cuba, is about to embark in the automobile business and establish a garage there. He has been in this country for several weeks, and finally has secured the agency for E-M-F and Flanders cars, of which he has ordered 25.

E. J. Welsh, a livery man at South Town, Ill., has found the horse business too slow and has entered the automobile field. All his horses and carriages were sold at auction and his stables have been transformed into a garage. Renting cars will be relied upon to keep the business on a paying basis.

Several automobile owners of Packingtown (South St. Paul), Minn., have formed a company for the purpose of erecting a co-operative garage and repair shop. The new building will be located on Concord street, near Grand avenue. The men interested in the project are M. O'Toole, E. Gardie, E. W. Frick, J. Coates, J. P. Nolan.

The Broughton & Cook Co., of Danville, Ill., has moved into new quarters on West Main street. The moving was accomplished in a unique manner; one of the larger automobiles belonging to the firm was stripped of its body, a wide platform erected on the chassis, and the machinery, furniture and other paraphernalia was carried on this improvised truck.

Within a few days the new salesrooms and garage erected by James E. Plew, at Wabash avenue and 27th street, Chicago, Ill., will be ready for occupancy. The building is four stories high, contains 100,000 square feet of floor space and cost \$200,000. It is one of the most sumptuously furnished and best equipped automobile buildings in the country.

C. B. Cleland and J. M. Brice, both of Des Moines, Ia., have formed a partnership and bought the property at the southeast corner of 10th and Locust streets for \$50,000. They will build a garage, 66 x 130 feet. Cleland is the owner of a string of grocery stores operated in Des Moines, while Brice formerly was the city salesman for the Warfield-Pratt-Howell Co.

In a disastrous fire on July 28th, a business block was destroyed in Pittsburg, Pa. Among the losers were the Liberty Automobile Co., 28 motor cars, and the Chase Motor Wagon Co., three large motor trucks. Both of the buildings in which these two companies did business were burned to the ground. The fire started at 5995 Center avenue and caused a total damage of over \$100,000.

Sam Johnson, of the Johnson Auto Co. Inc., Los Angeles, Cal., has purchased the Pacific Electric Garage and will conduct the same in the future with Elton Isbell, a local real estate dealer. Besides managing the new business, he will continue in his capacity as president of the Johnson company, which makes a specialty of manufacturing parts for the Tourist and other California automobiles.

Sixty gallons of gasoline, exploding in the open street in front of the garage of the Imperial Automobile Co., on Second street, between Third and Second avenues, New York City, shattered every window in the block and set fire to an adjoining house. Before the flames could be brought under control an automobile had been destroyed, a tenement house demolished and damage amounting to over \$20,000 been caused.

Facing two parallel streets, the new garage of Albert Lazaro, in Boston, Mass., is the only one in the Hub City to be thus favored. The building is located on Ferdinand street, and is divided into several parts by the instalment of "fire-doors." This arrangement is a new feature in garage building, as the "doors" can be folded back close to the wall, giving an uninterrupted floor space of something like 7,000 square feet.

**Gans Goes to White's Home Office.**

E. W. Gans, southern manager for the White Company, of Cleveland, O., with headquarters at Atlanta, Ga., has been promoted to the home office in Cleveland to exercise a general supervision over the southern territory. W. H. White, who has been cashier of the company's Atlanta branch, succeeds Gans as Atlanta manager.

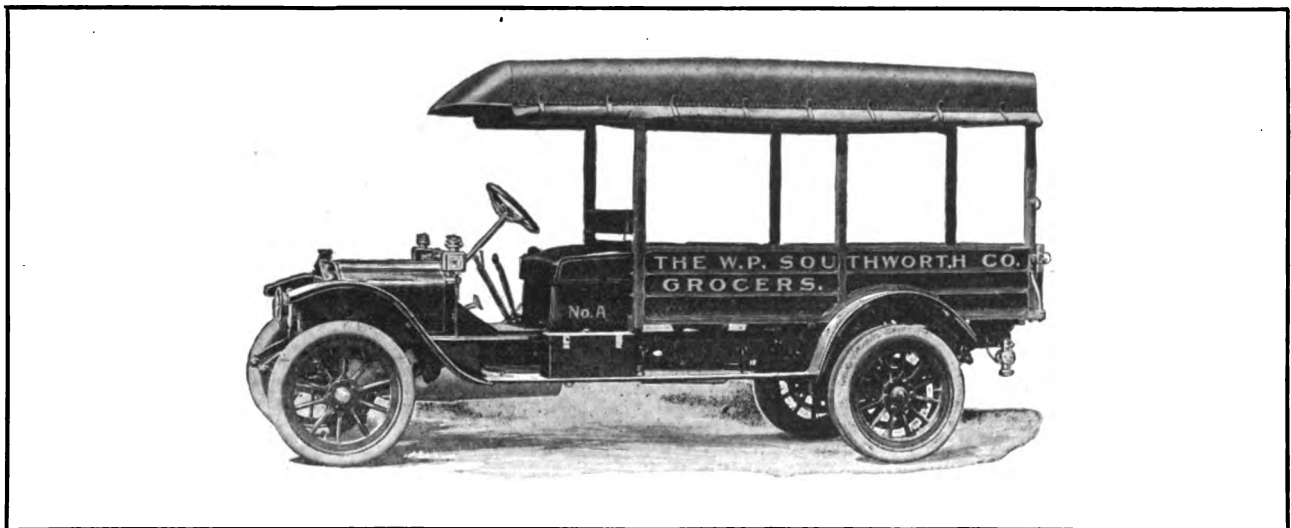
**Sheldon Axle Opens Chicago Office.**

The Sheldon Axle Co., of Wilkes-Barre, Pa., has opened an office and salesroom in Chicago, Ill., where it will maintain a full line of samples of automobile axles and springs, together with its other lines. The Chicago office is at 68 East 12th street, and is in charge of S. B. Russell.

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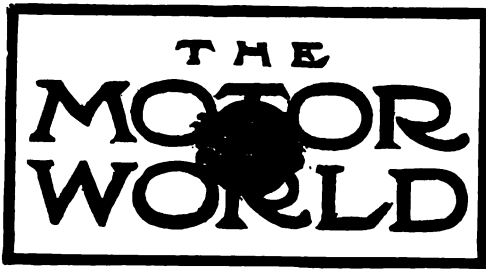
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#### Engineering's Need for Organization.

After five years of uneventful and passive existence the Society of Automobile Engineers stand upon the threshold of a most promising and useful career. Its purpose early was characterized as that of a "clearing house" for engineering ideas such as might be hatched in the automobile industry. But while it served to produce a large number of interesting and informing documents upon various questions connected with automobile manufacture, its real accomplishments were limited by its restricted membership and its lack of general representation.

The combination of circumstances which has brought the society to its position of present importance mainly results from the natural growth of the industry itself. A "babel of tongues" brought to a halt the first great engineering exploit which Biblical history records. And the modern method of avoiding the underlying condi-

tion which is reputed to have prevented the completion of the Tower of Babel is the organization of conferences and the establishment of the conventions. The automobile business at length has attained a magnitude and importance which renders absolutely necessary some sort of technical regulation.

This the organized engineers can accomplish to better purpose than any other sort of association, for the reason that they are absolutely free from trade animus and are working in a cause in which their own interests and those of their employers are absolutely merged. Without such an opportunity for exchanging engineering information and for reducing common problems to their lowest terms the waste effort expended would mount to large proportions. Indeed the effects of such waste already are being felt.

Under its present active administration and with a membership which fast is assuming workable proportions, the society should become as useful in its own limited field as are the great engineering and scientific bodies which grace the recognized professions. There is the chance that its work may be carried to needless extremes; that it may be exploited for private ends; that trade interests may seek to dominate it, but there is no present hint of such exploitation. Just now its outlook is most promising and the Detroit meeting, doubtless the most significant in its existence, may be considered as equally significant to the industry as a whole.

#### Lingering Deficiencies in Brakes.

While recognition of the importance of brake design has resulted in a general improvement of braking equipments during the past two or three years, the fact remains that not a few cars now in use are inadequately equipped in this respect. If the truth of the assertion require demonstration, there may be instanced a recent endurance run in which 22 of the surviving cars were submitted to the standard brake and clutch test, following a run of something over 800 miles. Only seven cars escaped penalization, while 10 suffered penalties for trouble with one set of brakes and six had trouble with both sets. On 13 of the cars the hand brakes were at fault and on seven the foot brakes gave trouble.

Regardless of whether they were old cars or new, machines that had seen arduous service or those which were in the

best possible condition prior to the run, practically two-thirds of the lot developed trouble in the braking system which might have proved a menace to safety in case of emergency. Assuming that two-thirds of the cars under test were machines either equipped with inadequate brakes or those which had not been cared for properly, and that all were more or less affected by the strenuous nature of the run just completed, the condition is not one to be regarded without concern. For cars with inadequate brakes are dangerous cars to drive and dangerous cars to meet on the road.

It is believed that designers at the present time are doing their best to equip the machines which pass under their hands with proper equipment in every respect. Is it also true that agents and dealers are equally watchful in urging upon their customers the importance of keeping the brakes in good condition? Many agents and a number of manufacturers maintain regular used car departments in which second-hand cars are refitted prior to being put on the market to be sold. Are such cars invariably equipped with new brakes when it is known that their original equipments were not perfectly trustworthy?

The subject is one of never-ending importance, and for the very simple reason that most drivers are accustomed to place too much confidence on their brakes and to use them more than is necessary. This habit not only makes for bad driving and encourages motorists in taking chances on the road, but it also makes for high depreciation in the entire mechanism and more especially in those parts which are rendered most important by an emergency.

#### Standardization and Its Effects.

After a number of years of misconception it is high time that the word "standardization" be given a new interpretation in the eyes of the motoring public. Due to the activities of the daily press, quite as much as to any other cause, motorists were given to understand two or three years ago that the adoption of such standards as the manufacturers then were reaching toward might have a repressive effect upon the industry at large. The inference was permitted to go the rounds that standardization meant the elimination of individuality.

As a matter of fact the adoption of the really useful standards of manufacture does not concern the motorist in any way save

that it provides him with a better car at lower cost. The use of the word must not be permitted to remain in a limited application referring to the number of cylinders in the motor, the type of change gear, the method of final drive or the shape of the body. Such similarities observable in different products may result from standardization, but more often they result merely from devotion to style or principle.

In the real work of standardizing the industry, which now seems in a fair way of being accomplished, five important branches are to be considered, none of them dealing with the principal parts of the car. And none of them is destined to affect the individuality of its design in any degree to the limitation of legitimate evolution or the exercise of the personal discretion of the manufacturer.

First of all, a standard of nomenclature is to be desired above all things, so that the language of the industry may be put upon an intelligible footing; so that all transactions dealing with parts and supplies may be carried on as nearly as possible in a universal tongue. Second—and in this connection much useful work already has been accomplished—it is necessary to have a standardization of materials, both as to metallurgical composition and treatment and method of specification. Third, the multiplication of similar operations in different portions of the same product and in similar relations in different products calls for a standardization of processes, of machine tools and of shapes. This leads directly to the grouping of certain connecting parts, such as bolts, nuts, studs, pins, levers, shafts and certain simpler form of mechanism under classified heads, after the fashion already undertaken by the mechanical branch of the Licensed Association of Automobile Manufacturers during its brief but efficient career. Finally, there is pressing need for a standardization in accessories and attachments to a degree that will permit such fittings to be mounted on the car effectively and without involving expensive or ticklish operations to be placed in the hands of workmen of doubtful skill.

There are still those who fear the effects of standardizing the industry, particularly in the matter of certain common forms and fittings. It is argued that the tendency may be to carry the thing too far and to work inconvenience upon the owner; it is feared that the industry may thus isolate

## COMING EVENTS

August 3-5, Galveston, Tex.—Galveston Automobile Club's beach races.

August 6, Philadelphia, Pa.—Quaker City Motor Club's race meet at Point Breeze track.

August 6, Wildwood, N. J.—North Wildwood Automobile Club's beach race meet on Ocean drive.

August 9-10, Brooklyn, N. Y.—Brooklyn Motor Vehicle Dealers' Association's 200 miles reliability contest on Long Island.

August 11, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 11-21, Rochester, N. Y.—Automobile Club of Rochester's annual tour.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 13, Newcastle, Ind.—Newcastle Fair Association's race meet.

August 13, New York City—Motor Racing Association's matinee at Brighton Beach track.

August 15—Start of second annual Munsey Historical Tour from Philadelphia, ending at Washington, D. C., 1,700 miles.

August 19-20, Brighton Beach, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race meet.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 30, Washington, D. C.—Automobile Club of Washington's hill climb.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

August 31-September 8, Kansas City, Mo.—Automobile Club of Kansas City's reliability contest.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 3, Wildwood, N. J.—North Wildwood Automobile Club's reliability run to Philadelphia.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5, Wildwood, N. J.—North

Wildwood Automobile Club's beach race meet on Ocean drive.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 17, Norristown, Pa.—Norristown Automobile Club's race meet.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint racemeet at Fair Grounds track.

September 21-23, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

itself from other mechanical efforts. Perhaps there also remain in the minds of those who oppose it some remnants of the old notion that complete standardization would involve the painting of all cars in one color, for instance, and the elimination

of wide option in buying. But this is an error. The work which the manufacturers have left undone and which the engineers now are undertaking for themselves, if skilfully carried through, bodes nothing but good for the industry.

## ENGINEERS IN SESSION

**Record Attendance at Mid-Summer Meeting of Society of Automobile Engineers at Detroit—Papers Presented Cover a Wide Range of Subjects.**

With more than twice as many members present as had attended any previous meeting during the five years of its existence, and with a bulky program opening up subjects for discussion in connection with al-

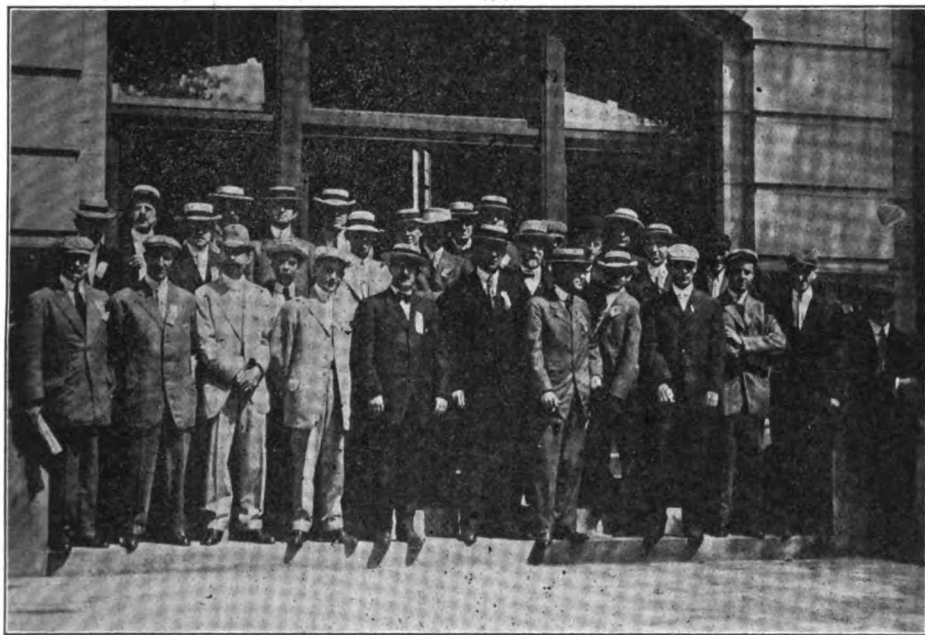
galvanizing it into activity along useful lines, but has carried through a membership campaign to such good purpose that no less than 60 new names have been added to the roster since the January meeting. The latest group of new names to be annexed was announced last week as follows: Harry H. Bassett, Weston-Mott Co.; Fred A. Bigelow, Carpenter Steel Co.; Charles Boyden, American Motor Car Co.; Professor W. H. Bristol, Waterbury, Conn.; A. G. Class, Falls Machine Co.; Fred Bizantz, Gramm Motor Car Co.; E. L. Franch, Crucible Steel Co. of America; El-

night and other festivities, afforded the relaxation necessary to proper digestion of the technical pabulum. Those present at the meeting were as follows:

H. K. Holsman, Plano, Ill.; F. P. Nehrbas, Buffalo, N. Y.; J. T. Pratt, Bay City, Mich.; F. E. Watts, Detroit; C. E. Cox, Minneapolis; N. A. Wolcott, Warren, Ohio; Bertram Bailey, St. Paul, Minn.; H. Vanderbeck, Canton, Ohio; C. D. Cramp, Philadelphia; A. W. Morris, G. A. Weidely, Indianapolis; Harold L. Pope, Wilkesbarre, Pa.; Scott Van Etten, Richmond, Indiana; J. P. Lavigne, Detroit; Henry G. Chatain, Schenectady, N. Y.; W. A. Frederick, Muskegon, Mich.; M. T. Lothrop, Syracuse, N. Y.; E. T. Georges, R. G. Lewis, R. E. Northway, Detroit; H. H. Brown, Boston, Mass.; C. E. Reddig, Hartford, Conn.; E. Gruenwald, East Moline, Ill.; P. L. Hussey, Detroit; E. W. Winans, Walkerville, Ontario; Walter C. Baker, Cleveland, Ohio; J. A. Anglada, New York; A. H. Ehle, Philadelphia; D. T. Brownlee, Indianapolis.

W. H. Cameron, Toledo, Ohio; F. W. Spacke, Indianapolis; G. A. Gemmer, Detroit; E. A. Nelson, F. H. Floyd, Detroit; Christian Girt, Cleveland; H. P. Dodge, Toledo, Ohio; C. M. Foster, Toledo, Ohio; Raymond Gilley, Passaic, N. J.; C. E. Whitney, Hartford, Conn.; C. E. Totman, Hartford, Conn.; B. B. Neuteboom, Kalamazoo, Mich.; E. L. Smith, Cleveland, Ohio; H. S. Baldwin, Swampscot, Mass.; H. M. Swetland, New York; A. F. Shore, New York; C. L. Halliday, Jackson, Mich.; B. A. Gramm, Bowling Green, Ohio; Geo. S. Salzman, Buffalo, N. Y.; A. M. Dean, Wilkesbarre, Pa.; L. C. Freeman, Detroit; C. C. Hinckley, Detroit; George S. Case, Cleveland, Ohio; D. F. Graham, Bristol Conn.; B. C. Ellis, Medford, Mass.; V. G. Apple, Dayton, Ohio; E. S. Sangren, Detroit; R. P. Johnson, Muncie, Ind.; W. P. Kennedy, New York; A. R. Miller, New York; F. H. Berger, Wm. V. Lowe, Fitchburg, Mass.; W. H. Radford, Detroit; Adam Haskell, North Chicago, Ill.; W. G. Wall, Indianapolis; Frank Johnson, Detroit; Edward Sokal, Chicago; H. S. White, Detroit; I. W. Adams, Detroit; Harold N. Anderson, Dayton, Ohio; Jerome J. Aull, Cincinnati, Ohio; Elmer R. Ritter, Cincinnati, Ohio; C. H. Taylor, Detroit; Arthur Holmes, Syracuse, N. Y.; W. S. Hovey, Three Rivers, Mich.; G. E. Merryweather, Cleveland; M. R. Hutchinson, New York; J. O. Heinze, Lowell, Mass.

S. V. Hunnings, Schenectady, N. Y.; A. C. Bergman, New York City; Guy W. Vaughn, Kingston, N. Y.; John A. Mathews, Syracuse, N. Y.; Lawrence Whitcomb, Boston; T. V. Buckwalter, Altoona, Pa.; C. E. Franquist, New York; George C. McMullen, Buffalo; W. F. Abel, Cleveland, Ohio; A. J. Slade, New York; Bruce Ford, Philadelphia; D. Ferguson, Buffalo; John H. Hartner, Cleveland, Ohio; Edward Ehler, Buffalo; H. G. McComb, Buffalo; E. B. Jacobson, Pittsfield, Mass.; John A. Crow-



GROUP OF S. A. E. MEMBERS AT THE E-M-F FACTORY

most every topic associated with the automobile designer and constructor's occupation, the mid-summer meeting of the Society of Automobile Engineers, which was held in Detroit on Thursday, Friday and Saturday of last week, 28th, 29th and 30th ult., afforded encouraging evidence of the work which has been done in bringing it into a state of useful activity.

Since the previous meeting, held last January, the S. A. E. has become acknowledged successor and residuary legatee of the now defunct mechanical branch of the Licensed Association of Automobile Manufacturers, inheriting that body's store of data and its standards for materials and small parts. In a broader and more general way, its leaders now plan to carry on the work begun by the mechanical branch.

Without doubt the society's most valuable heritage from the mechanical branch is in the person of Secretary Coker F. Clarkson, who, in resigning as assistant general manager of the A. L. A. M. and assuming the general management of the engineers' society, has brought the ripe experience gained in the administration of the affairs of the branch. In devoting his entire time to the work he has succeeded not only in

wood Haynes, Haynes Automobile Co.; C. W. McKinley, Willys-Overland Co.; W. C. Pratt, Hudson Motor Car Co.; Ernest E. Sweet, Cadillac Motor Car Co.; A. P. Sloan, Hyatt Roller Bearing Co.; George B. Norcross, Becker Steel Co.; Fred I. Tone, American Motor Car Co.; Hugh Kerr, Thomas, Pierce-Arrow Motor Car Co.; C. L. White, E. R. Thomas Motor Co.

In addition to the consideration of a long list of papers dealing with engineering matters, the meeting was enlivened by discussions of various projects for enhancing its usefulness and by more or less informal debates upon some of the live questions of the day in connection with the development of the industry. A break in the program occurred on Friday morning, when the engineers in various groups visited the plants of the Aluminum Castings Co., Burroughs Adding Machine Co., Cadillac Motor Car Co., Chalmers Motor Co., Detroit Steel Products Co., E-M-F Co., Gear Grinding Machine Co., Packard Motor Car Co., Timken-Detroit Axle Co.

The subsequent luncheon, as guests of the Timken-Detroit Axle Co., and afternoon boat trip, as well as the dinner in the evening, the society dinner on Thursday



ley, New York; C. L. Hastings, Pittsburg; H. E. Coffin, Detroit; E. T. Birdsell, Detroit; E. Gruenfeldt, Cleveland; George E. Bowerson, Fort Wayne, Ind.; W. H. Starling, Cleveland; George W. Dunham, Detroit; W. H. Vandervoort, East Moline, Ill.; D. D. Rowlands, Anderson, Ind.; Frank H. Floyd, Detroit; J. Coapman, Detroit; C. Clemens, Cleveland, Ohio; Otto Heins, New York; H. J. Edwards, Dayton, Ohio; R. S. Fend, Chicago; W. H. Tuthill, Chicago; James M. L. Howe, Buffalo, N. Y.; R. C. McLaughlin, Oshawa, Ontario; H. Kerr-Thomas, Buffalo.

#### PROGRESS IN GEAR-GRINDING.

How much of the success of the modern automobile is dependent upon new and highly perfected manufacturing processes is known only to those who are thoroughly familiar with the engineering side of the industry. It is a fact, nevertheless, that advancement in machine tool invention and design is responsible for a vast deal of the observed betterment in ordinary running conditions, and that progress in this direction is being made at a very rapid rate. Illustrative of this sort of development is the rendering of gears quiet by grinding. Gear grinding is one of the latest developments in machine tool practice. It not only provides for better gear action but it also permits economies through the adoption of otherwise inappropriate materials. The paper read by A. Ward threw considerable light on the most recent steps which have been taken in this most important branch of production engineering.

"The automobile engineer in considering the gear problem faces several conditions," said he. "The gears used must be sufficiently strong and so designed as to withstand not only a constant operating load, but also sudden shocks that may arise from inexperience or other causes. Also the public demand a quiet-running gear. There must be skin-hardening of the surface of the gear, to give commercial life. After determining the load factor, some suitable pitch is chosen, and the form of tooth and the pressure angle are decided upon. The material to be used is also determined. With the above data perfect gears could be secured to meet all conditions except as to wearing life. The hardening of gears sets up inaccuracies which it has been impossible to overcome.

"I approached this subject along the line that gears may be heat-treated and case-hardened and allowed to change in physical form to the fullest extent, but that a machine must be devised to restore them to perfect form at a commercial cost. Prior experimenters have generally tried to use a thin abrasive wheel, whose revolving perimeter would trace up and down the curve of the gear tooth. But the wear on such a wheel was marked, and it was found impossible to maintain it continuously to form. My basic idea was to use a unit

area of grinding wheel to the unit area of surface to be ground and to maintain this unit area of grinding wheel to the constant form desired by means of some trimming device. A first experimental machine was completed in 1907. From then until the latter part of 1909 the machine was in process of development. During the early part of this year we proceeded to grind rough-cut hardened gears with such a degree of accuracy that in measuring a group of teeth the variation from theoretically absolute accuracy has been less than .001 inch or less than .0002 inch per tooth. The

mon method of change-gears is employed.

"The forming device is a simple combination of mechanical movements. Any standard form of spur gear teeth and many so-called freak forms are easily developed upon the sides of the grinding wheel and rapidly reproduced upon the gear.

"Within this device is a master form, which is mathematically calculated and laid out in advance, and by means of the mechanical movements regulates and controls absolutely the curve through which the trimmer diamonds pass. To change the form upon the periphery of the wheel for



ENGINEERS VISITING THE CHALMERS PLANT

machine has also obtained such speed in operation as to make it a commercial success.

"The present Type A Grinders are designed to handle a line of gear work from the smallest up to and including 12 pitch diameter, as heavy as .4 pitch and with a face dimension up to 4 inches. The gear, rough-cut or as the case may be, with stock allowed for finishing in the grinder, is mounted upon an arbor in a manner similar to that employed in gear-cutting. By means of a number of well-known mechanical movements the grinding wheel revolving at a proper rate of speed, is brought forward and passes with a shaperlike movement between the gear teeth. This grinding wheel is of a grade suitable for grinding the material of which the gear is made, and is kept continuously to the required form by means of an automatic forming device.

"In order to grind gears successfully the indexing device is of the utmost importance, as the extreme of accuracy is required. A newly developed indexing device has eliminated the common trouble arising from friction driven indexing devices and is now used upon the machines. For obtaining the required number of divisions the com-

grinding different types and forms of teeth, the operator simply replaces the controlling form in use with the one desired and re-trims the grinding wheel, operations which require but a few minutes.

"The use of these machines for the production of gears for automobile work has been an afterthought. The making of gears for the industrial field from materials which have hitherto been commercially impracticable on account of many difficulties, has been one of the influences in the development of these machines. There are materials which can be cast roughly to form gears, which, after being finished by the grinding process outlined, will show easily from five to seven times the life of the ordinary forged and heat-treated gear. The only method by which it has previously been possible to finish the teeth of such cast gears is by hand through the use of emery.

"No comment need be made as to the long step forward which this gear grinding machine shows in the art. Plans are now being brought forward whereby in the near future we will accurately grind gears having diameters up to 42 inches for electric-traction, crane and other purposes. We

(Continued on page 296a.)

**MISSING CHAUFFEURS A MYSTERY**

**Puzzle Koenig as to Why they Do Not  
Take Examinations—Badges and Plates  
Cause Criticism.**

"Lost—Fifteen or twenty thousand chauffeurs. Suitable reward will be paid for their return. Address Sam Koenig, Albany, N. Y."

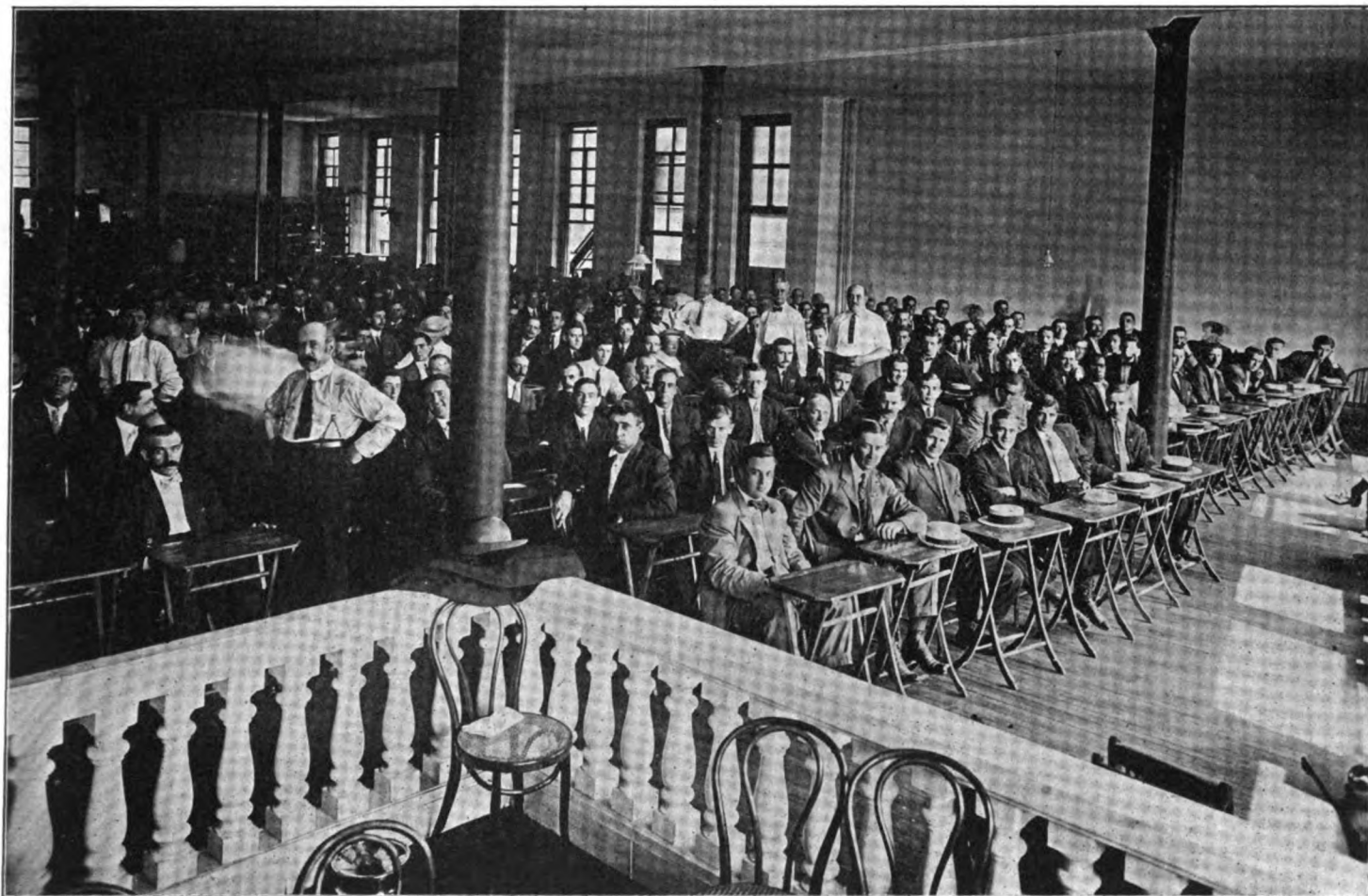
If such an advertisement should appear in the New York dailies it would cause no great surprise; for it may serve to solve

Koenig's bureau having been unequal to its task, perforce has had to supply many drivers with "letters of identification," which may serve to keep them out of jail in the event of arrest. Few if any of the chauffeurs who have received their badges are proud to wear them; and not without reason.

The badges are about the cheapest looking things ever manufactured for such a purpose. They break easily, and it costs the unlucky owner a dollar to have one of them duplicated, when its real value is

heads" and the enameled figure dropped to the ground. On some of the plates the figures are made worse by not being placed evenly on a line.

And thus it has come to pass that Secretary Koenig, in a fatherly endeavor to welcome the "lost, strayed or stolen" twenty thousand, when they decide to apply for their certificates, has gone beyond the statutes and graciously extended the time limit of the new law and granted them 15 days additional, in which to see the error of their ways, and in which to show the



NEW YORK STATE CHAUFFEUR'S KINDERGARTEN IN SESSION

the mystery of the disappearance of this small army of automobile drivers or would-be drivers. Since the Callan bill was passed it had been estimated that there were about 30,000 professional chauffeurs in the metropolitan district. Now that the new law has been in effect, on paper at least, for three full days, something or other seems to have miscarried, for there have been but 11,000 applications for examination. The authorities are puzzled; they can't understand it. Where are all the others? Someone in Mr. Koenig's Bureau of Registration guessed that they were at summer resorts with their employers, or touring Europe, or—"somewhere."

Very many of the chauffeurs who submitted to the examination have not yet received their badges. Secretary of State

nearer five cents than one dollar. The badges, however, are about as good as the number plates for the cars themselves. Of course, nobody expects artistic work on a number plate. What an owner has a right to expect, however, is to find the plate manufactured in such a way as to assure its lasting through the year, provided reasonable care is used. From the experience of some of the owners who have received the new plates it appears that not only are the white enameled numbers furnished with edges chipped off and cracked enamel, but the fastenings are so insecure that one of the cars belonging to a public service company lost one of the figures of its plate, after bumping into a particularly large hole in the asphalt pavement on Eighth avenue. The "rivets" simply "lost their

examiners at Broadway and 74th street how well they know the ins and outs of automobile driving and the inwards of automobile mechanism. This latter is a sore point in some quarters.

"We have lost two of our best drivers," said the head of a firm employing a number of commercial vehicles in expressing his feelings on the subject, "and solely because they could not answer some of the questions relating to the machinery of the cars. We did not employ them for their knowledge in that respect, but because they were cool, reliable fellows, who knew how to drive. We keep our machinists in our repair shops. I can't see why it is any more necessary for a chauffeur to be a mechanical sharp than it is for a horse driver to be a veterinary surgeon."

## BUSES TANGLE SECRETARY KOENIG

**Mandamus to Make Him Recognize Fifth Avenue Coaches as "Commercial Vehicles"—Saving Registration Fees.**

If Mr. Callan, framer of the New York state automobile law, and his various assistants had thought of the terms "passenger car" and "freight car," which now are being discussed in connection with their proposed general adoption by the automobile trade, Secretary of State Koenig would not have been made the object of a writ of mandamus served upon him by the Fifth Avenue Coach Co., which operates the buses on Fifth avenue and Riverside drive.

The Callan law distinguishes between pleasure vehicles and commercial vehicles, but fails to define the latter. It is the contention of the Fifth Avenue Coach Co. that while their buses are passenger vehicles, they also are commercial cars, in the sense of being operated for a profit, and being free to any man on the street for a fare of ten cents. Secretary Koenig, however, holds that the Callan law makes no distinctions of that kind, and that in his opinion a commercial automobile is one used by merchants, manufacturers or the like for the transportation of goods and merchandise and not passengers. Until courts settle this question, the secretary claims that the interests of the state demand that he decide doubtful claims in favor of the state.

When Richard W. Meade, president of the New York Transportation Co., which is the owner of a majority of the stock of the Fifth Avenue Coach Co., was seen by a Motor World representative, he stated that the writ of mandamus had been applied for in order to have the status of the commercial vehicle judicially defined.

"The application for the writ," said Mr. Meade, "is made in a perfectly friendly way, and Secretary Koenig is heartily in favor of our effort to obtain a judicial decision which once and for all will define exactly what a commercial vehicle is and what it is not. The Fifth Avenue Coach Co. at present has 60 buses in service, and is about to install 25 more, so that the difference in the annual registration fee would amount to \$850. When the question of registration under the Callan law first came up, I submitted to Mr. Koenig various current issues of trade papers dealing exclusively with commercial cars, and in each of these considerable space was devoted to the operation of buses, taxicabs, etc., showing conclusively that in the opinion of the automobile trade a motor bus is considered a commercial vehicle. Mr. Koenig could not see it that way, and held that in the opinion of the general public and in that of the makers of the law a commercial car

is one carrying merchandise, not passengers. The Fifth Avenue Coach Co. therefore has registered one of its buses as a commercial vehicle, and when this car was protested under the regulations of the Callan law, applied for a writ of mandamus, requiring Secretary Koenig to show cause why this particular vehicle should not be permitted to run in the streets of the city under the provisions made for commercial vehicles, paying an annual license fee of \$5. The remainder of the buses were registered by the company, and, under protest, the license fee applying to pleasure cars was paid—\$15 for each machine. This money is being held by the secretary of state pending the outcome of the writ of mandamus."

Asked about taxicabs, Mr. Meade stated that after the bus question had been settled the taxicab problem probably would be taken up. "If it is decided by the court," he said, "that when operated by a transportation company for rent or hire, regardless of the kind of load it carries, a motor vehicle shall be classed as a commercial vehicle, it follows that a taxicab comes under that heading. In fact it seems perfectly right to class taxicabs as such, for only in rare instances do they use the state highways, most of their traffic being confined to the streets of the city in which they are located. Why a taxicab should pay a state tax for using highways when it does not use them to any great extent is a puzzle to not a few people."

### Frelinghuysen Shows His Alarm.

"Joe" Frelinghuysen, the New York insurance man, who also is a New Jersey senator, apparently has taken alarm at the unexpected effects of the "hold-up" automobile law which he fathered in the Mosquito State. Frelinghuysen now is anxious to become governor of New Jersey, and the howl that has arisen since other states began to play the "hold-up" game with New Jersey motorists as the victims, is not the sort of thing that helps the ambitions of any political candidate. The movement to quell the outcry—and probably to assist Frelinghuysen's candidacy—took the form of a semi-secret conference in Trenton last week. The candidate was present, of course; so was New Jersey's commissioner of motor vehicles and other politicians, likewise several automobilists. The object of the conference was said to be to establish more friendly relations with other states.

### Arrest Unlicensed Woman Driver.

In New Jersey not even a man's wife may drive his car, even though the latter may be but a light electric runabout, without first having obtained a driver's license. Mrs. Nellie Claypole, of Paterson, N. J., was the woman who was arrested for this heinous offence. She was found guilty of violation of the state automobile laws, but sentence was suspended.

## BRANCH MANAGERS NEED BADGES

**Elite of "Automobile Row" Legally Classed as "Chauffeurs"—Why They Cannot Escape Law's Requirements.**

Hereafter it will not be safe for the blown in the bottle chauffeur who stops in the vicinity of New York's plate glass "automobile row" to saunter over to any man he sees wearing the piece of tin which passes as a chauffeur's badge and ask the old question: "Who yer drivin' fer?" The man may be the president or treasurer of the company that sells \$5,000 automobiles or he may be the kid-gloved manager or head salesman in any one of a hundred gilded automobile palaces. For be it known that no longer can such men drive a car belonging to the company of which they are a part or a leading employe unless they are decorated with one of the tin badges "conspicuously displayed."

When the Callan bill first was made public, the Motor World called attention to the clause which made the conditions possible. It was and is contained in the definition of the word chauffeur, i. e., "any person driving an automobile as an employe or for hire." This clearly applies to managers and salesmen who make use of demonstrating cars and when the question was raised this week, Secretary of State Koenig not only so decided but went further and ruled that it applies also to officers of corporations in whose names the ownership of cars is vested and registered. As the law requires that cars shall be registered in the names of their owners, no car owned by a corporation may be used by any officer or employe unless he be a registered chauffeur. Failure to do so entails a \$50 fine, and failure to display the badge means a fine of the same sum.

As the registration clause requires that the applicant shall make oath to ownership of the car sought to be registered, any officer or employe using a corporation's car cannot register it in his own name without making a false statement (fine \$50) and without rendering himself liable to criminal prosecution for perjury.

Hence when the full meaning of the law dawns on "automobile row" and elsewhere there is likely to be something of a flutter in quite a few high dovecotes.

### Two Pope-Hartfords in the Vanderbilt.

For the first time in their history Pope-Hartford cars will be seen in the Vanderbilt Cup race this year, two nominations of this well known make having been made. The cars which will be of the 1911 model, four cylinder pattern, have been entered by H. E. Holt of New York City, and B. C. Fincke, Short Hills, N. J. It is understood the drivers will be Dingley and Clemons.

## ALL SURVIVE CLEVELAND'S RUN

Three Days Contest Over Northern Ohio Roads—Knudsen, Stambaugh and Rauch Get Special Honors.

Like unto a family reunion was the three days' reliability contest promoted by the Cleveland (O.) News on the 25th, 26th and 27th ult., for it brought together 32 cars of prominent makes from the new 1911 models' down to the erstwhile prides of five years ago. Despite their varying ages and numerous hills and some formidable sand stretches encountered in the 500 miles' excursion through the Buckeye State, all of the 32 starters survived the three days' test, 17 of them coming through with perfect scores. Those who were penalized suffered for minor troubles. Among the perfect performers H. C. Knudsen, Overland, and John Stambaugh, Chalmers, received additional honors. Knudsen won the amateur prize, a Goodyear air bottle, and Stambaugh, in recognition of his exceptional work, was presented with a Jones Live Map. Although slightly penalized for carburettor trouble the Hupmobile driven by John Rauch was awarded the cup for cars costing less than \$800.

The start was made from the Hollenden Hotel at 6 o'clock Monday morning, 25th ult. Heavy rain the previous night had laid the dust, and the roads on the first day were excellent. Lunch was taken at Wooster and the afternoon run was to Columbus, where the night was spent. Although Columbus was on the eve of a hot political convention when the visitors arrived they speedily shared honors with politics as topics of interest.

Tuesday's run to Toledo was marked by a continuous string of tire trouble which was charged to the excessive heat expanding the air in the tires, but the nearest approach to mishap was when a wheel of T. E. McCoy's Brush was put out of commission by an accident on a bad stretch of road. A local Brush owner came alongside, however, and perceiving the situation removed a wheel from his car and insisted that McCoy take it and continue.

Rain fell again on Tuesday night, and while it laid the dust on the good stretches of Wednesday's final leg it also rendered the poor stretches very ticklish to negotiate. Between Elyria and Norwalk the holes and ruts were filled with water which obscured many a bump that was not discovered until the cars hit them and deluged the occupants with muddy water. To make things more disagreeable, the tourists were caught in a heavy rain near Rocky River, but it did not cause any desertions from the ranks. Cleveland, the final control, was reached at 5:30 Wednesday afternoon.

Those who received perfect scores were

as follows: J. C. Winters, Oldsmobile; Ira Fouche, Studebaker; Hugh Miller, Palmer-Singer; Frank Grace, E-M-F; J. C. Hipp, Regal; A. L. Soper, Gabriel; Harry McIntosh, Firestone-Columbus; J. C. Koepke, Cutting; Frank Santry, Maxwell; C. G. Bleasdale, Columbia; Otto Lindner, Gaeth; F. Munroe, Owen; Ralph Kinney, Garford; Fred Krum, Oakland; H. C. Knudsen, Overland; John Stambaugh, Chalmers, and William McCalla, Hudson.

The other survivors were Frank Pierce, Buick; Jack Sperry, Henry; O. Alexander, Hinescar; Harry Kortz, Atlas; C. W. White, Pierce-Racine; J. M. Rauch, Hupmobile; T. E. McCoy, Brush; Harry Gabriel, Krit; D. E. Foote, National; H. W. Orndorfer, DeTamble; Thomas Swan; Packard; F. J. Moore, Hinescar; H. B. Olds, Norwalk; H. S. Moore, Stoddard-Dayton.

### Clark Wins St. Paul Endurance Run.

When the officials completed the technical examination and cast up the results of the performances of the 16 cars which competed in the five days' reliability run of the Minnesota State Automobile Association for the St. Paul "Dispatch," Warner and Gregg trophies, on the 22d to 27th ult., A. A. Clark, of St. Paul, driving a Franklin, evolved the winner. He made a perfect road score, but lost 3 points on the technical grill, giving a final percentage of 997. Four others—O. C. Phillips, Pierce-Arrow; O. E. Martin, Hudson; G. L. Gilbert, Chalmers; and Arthur Laroche, Regal—also performed perfectly on the road but received larger assessments from the technical committee.

C. A. Lewis, Reo, made the second best showing, gaining a percentage of 989, and A. A. Hanson, Ford, came next with 979. The "Dispatch" trophy, which is a perpetual prize, will be held by the St. Paul Automobile Club for the coming year, while the Warner trophy becomes the permanent property of A. W. Kent, owner of the winning car. Clark receives a gold medal for his work. On account of a delicate question involving the relation of price to percentage arising in regard to the scores of the Ford and Reo, the A. A. A. will be asked to decide which is entitled to the Gregg trophy.

The results in detail:

Drivers and Cars.	Penalizations	
	Rd. Tech.	%
A. A. Clark, Franklin.....	0	3 997
C. A. Lewis, Reo.....	6	5 989
A. A. Hanson, Ford.....	1	20 979
O. C. Phillips, Pierce-Arrow.....	0	45 962
Rudd Stensvad, Cadillac.....	21½	21 957½
A. P. Heaney, Halladay.....	27	16 957
W. A. Alden, Cole.....	24	29 947
G. L. Gilbert, Chalmers.....	0	57 943
O. E. Martin, Hudson.....	0	64 936
C. W. Schanno, Halladay....	4	97 899
F. E. Hypins, Cartercar.....	46	57 897
E. B. Stimson, Hupmobile....	45	59 896
Frank Siefert, Cole.....	32	34 884
W. J. Ranger, Auburn.....	5	144 871
Arthur Laroche, Regal.....	0	296 704
Troy Duis, Staver—Incomplete.		

## COLUMBUS HAS A TWO DAYS MEET

Oldfield Breaks "Dirt Track Records"—Frayer Captures Hard 100 Miles Grind for the Hoster Trophy.

What they styled "state dirt track records" were shattered at the 'two days' race meet at the Driving Park track, Columbus, O., in Friday and Saturday, 29th and 30th ult., and of course the Oldfield-Kirschner combination played the part of shatterers. The figures which were erased from the Pickens slate were for one and three miles. Oldfield, on Friday, reeled off a mile in 53 seconds, and Kirschner melted off three circuits in 2:33¼, both said to be new state records. On Saturday, Barney hammered his mile figures of the previous day down to 50¾ seconds, and Kirschner also further compressed the three miles mark by two-fifths of a second.

It was Lee Frayer, however, who on a Firestone-Columbus annexed the blue ribbon of the card, the 100 miles grind for the Hoster trophy, on Saturday. Getting away to a very ordinary start, Frayer trailed steadily behind while Oldfield with the Knox headed the van and unwound so fast that he soon had the rest of the half dozen starters well strung out trying to hold on. The first to quit was Emmons, Herreshoff, who retired in the 36th mile, and he was followed a few minutes later by Rickenbacher, Firestone, who had engine trouble. Oldfield still in front, and having lapped all the others, made a non-stop run until the 76th mile, when he had to draw up for spark plug troubles. Then Frayer, who had crept up almost unnoticed, closed the gap between himself and first, and drew a lead which Oldfield was unable to close. The time, 1:49.52. Elliott, in another Firestone, displayed a perseverance which lasted to the finish and gained him third.

Bringing out a field of nine cars, the five-miles handicap on Friday proved the banner event of the day. Rickenbacher, Firestone, had the limit, 53 seconds, and led Oldfield a merry chase. The latter passed all the others, but could not pull down the lone runaway, who won out, Oldfield bringing the Knox in second. Time, 5:01¼. Elliott, Firestone, livened things up a bit in this event by going through the fence on a turn, but escaped without a scratch.

In the 25 miles handicap on Friday, Oldfield allowed Frayer to lead for 11 miles, when he gave the Knox its head and left Frayer in the dust, winning by half a mile. The attendance was good, 2,000 on Friday and 3,000 on Saturday. The summaries:

### First Day—Friday, 29th.

Five miles, 161-230 class—Won by Rickenbacher, Firestone-Columbus; second, Walter Emmons, Herreshoff. Time, 5:34¼.



Five miles, 231-300 class—Won by Hugh Hughes, Parry; second, Elliott, Firestone-Columbus. Time, 5:31 $\frac{3}{4}$ .

Five miles, Columbus championship—Won by Herbert Campbell, Parry. Time, 5:34 $\frac{3}{4}$ .

Five miles, 301-450 class—Won by Fritz, Buick; second, Hugh Hughes, Parry. Time, 5:07 $\frac{3}{4}$ .

Five miles handicap, free-for-all—Won by Rickenbacher, Firestone-Columbus; second, Barney Oldfield, Knox. Time, 5:01 $\frac{3}{4}$ .

One mile against time, Oldfield, Benz—Time, 0:53.

Three miles against time, Ben Kirscher, Darracq—Time, 2:35 $\frac{3}{4}$ .

#### Second Day—Saturday, 30th.

Five miles, 161-230 class—Won by Rickenbacher, Firestone-Columbus; second Walter Emmons, Herreshoff. Time, 5:21.

Five miles, 231-300 class—Won by Hugh Hughes, Parry; second, Elliott, Firestone-Columbus. Time, 5:26 $\frac{3}{4}$ .

Five miles handicap, free-for-all—Won by Rickenbacher, Firestone-Columbus; second, Hugh Hughes, Parry; third, Elliott, Firestone-Columbus. Time, 5:16 $\frac{3}{4}$ .

Three miles against time, Ben Kirscher, Darracq—Time, 2:33 $\frac{3}{4}$  (record).

Five miles, 301-450 class—Won by Fritz, Buick; second, Hugh Hughes, Parry. Time, 5:14 $\frac{3}{4}$ .

One mile against time, Oldfield, Benz—Time, 0:50 $\frac{3}{4}$ .

One hundred miles for Hoster-Columbus trophy—Won by Lee Frayer, Firestone-Columbus; second, Oldfield, Knox. Time, 1:49.52.

#### Lively Hill Climb at San Antonio.

Bounding up the crooked quarter mile grade with a reckless abandon which easily persuaded the spectators to give him plenty of elbow room, Tobin DeHymel, driving a big Stoddard-Dayton car, was the star at the San Antonio (Tex.) Automobile Club's hill climb at New Braunfels, Sunday, 24th ult., and twice "brought home the bacon," or rather cups.

After corraling the opening number, a class event, in a canter, DeHymel lay low until the red letter class, the free-for-all, was called. Splitting the air with a roar which drowned all other sounds, the big Stoddard swept up the hill in a manner which left no doubt as to the result, and registered at the finish in 27 $\frac{3}{4}$  seconds, the fastest of the day. M. A. Holmes, in a Jackson, came nearest to the winner, with a flight in 34 seconds, beating Phil Wells, the "Man in the Moon," by 2 seconds. Wells also climbed among the laurel wearers by topping the 231-300 class. He made the climb in 36 seconds, beating Salley, in the Kisselkar by 6 seconds. The event for cars in the 301-450 classification was won by Leo DeHymel, who piloted a Velie to the summit in 32 seconds. Holmes, in the Jackson, was second.

## SQUABBLE AT SALT LAKE CLIMB

### One of the Judges Accuses a Driver of "Pulling"—Vanderbilt Car Gives an Exhibition.

Tactics well known in horse racing but quite unusual in automobile contests, which apparently were introduced to bring about certain results in the hill climb promoted by the Salt Lake (Utah) "Telegram" on the Brigham street hill on Saturday, 30th ult., caused quite a rumpus, and also resulted in a protest being filed against Frank Siefert, who won the free-for-all class with a Stoddard-Dayton, in which he drove an Apperson also. He was accused by Samuel Newhouse, one of the judges, of "pulling" or holding back the Apperson, which previously had made faster time than the Stoddard, in order to let the latter win.

In one of the previous classes for cars costing \$4,000 and under, Siefert drove the Apperson up the hill in 1:05 and won the event, yet in the free-for-all, in which he had two mounts, the Apperson required 1:12 $\frac{3}{4}$ , a falling off of more than 7 seconds, while the Stoddard-Dayton swept to the summit in 1:07 $\frac{3}{4}$ . The protest will be referred to the A. A. A. contest board for decision. Richardson, in a Palmer-Singer, was second in the big class making the trip in 1:11 $\frac{3}{4}$ . He also tied for first honors in the class for cars costing \$1,601-\$2,000, in a Velie, registering at the finish in 1:25, which Carl Winter, Buick, duplicated.

Siefert and the Stoddard were the stars of the day, winning, in addition to other honors, the \$2,001-\$3,000 class in 1:11 $\frac{3}{4}$ , and running second in the \$1,201-\$1,600 division. His time in the \$4,000 and under class was the best of the day in the regular events, although W. F. Dodd, in a Thomas Vanderbilt Cup car, made an exhibition climb in 0:56 $\frac{3}{4}$ . The course was a mile in length, beginning at Eleventh East street and finishing at the Fort Douglas military reservation. The summaries:

#### \$800 and Under.

Driver and Car.	Time.
A. F. Savage, Hupmobile.....	2:25 $\frac{3}{4}$
F. Nevin, Flanders.....	2:56

#### \$800 to \$1,200.

H. Kessler, Ford.....	1:48 $\frac{3}{4}$
Monte Young, Buick.....	1:51
Bert Angell, Buick.....	2:00 $\frac{3}{4}$
J. Lawrence, Overland.....	2:25 $\frac{3}{4}$

#### \$1,201 to \$1,600.

W. F. Dodd, Buick.....	1:31 $\frac{3}{4}$
Frank Siefert, Stoddard.....	1:45 $\frac{3}{4}$
Frank Gravin, E-M-F.....	1:46
R. Richardson, Overland.....	1:47 $\frac{3}{4}$
H. E. Elliott, Cadillac.....	2:03 $\frac{3}{4}$

#### \$1,601 to \$2,000.

D. Richardson, Velie.....	1:25
Carl Winter, Buick.....	1:25
Frank Siefert, Stoddard.....	1:28 $\frac{3}{4}$

W. F. Dodd, Buick.....	1:34 $\frac{3}{4}$
Bert Angell, Oakland.....	1:44

#### \$2,001 to \$3,000.

Frank Siefert, Stoddard.....	1:11 $\frac{3}{4}$
W. F. Dodd, Buick.....	1:17 $\frac{3}{4}$
Carl Horst, Winton.....	1:17 $\frac{3}{4}$
H. Bracken, Premier.....	1:18 $\frac{3}{4}$
Carl Winter, Buick.....	1:26

#### \$4,000 and Under.

Frank Siefert, Apperson.....	1:05
Frank Siefert, Stoddard.....	1:08
E. McLaughlin, Palmer-Singer.....	1:13 $\frac{3}{4}$
Monte Young, Thomas.....	1:16
W. F. Dodd, Buick.....	1:15 $\frac{3}{4}$
H. Bracken, Premier.....	1:16 $\frac{3}{4}$
L. J. Gilmer, American.....	1:30 $\frac{3}{4}$
S. D. Reed, Studebaker.....	1:36 $\frac{3}{4}$

#### Free-for-All.

Frank Siefert, Stoddard.....	1:08 $\frac{3}{4}$
D. Richardson, Palmer-Singer.....	1:11 $\frac{3}{4}$
Frank Siefert, Apperson Jack.....	1:12 $\frac{3}{4}$
H. Bracken, Premier.....	1:15 $\frac{3}{4}$
W. F. Dodd, Buick.....	1:15 $\frac{3}{4}$
F. M. Downs, Thomas Flyer.....	1:16
Bert Smalling, Packard.....	1:17 $\frac{3}{4}$
D. Reimer, Velie.....	1:21 $\frac{3}{4}$
L. J. Gilmer, American.....	1:22 $\frac{3}{4}$
S. D. Reid, Studebaker.....	1:32 $\frac{3}{4}$

#### Delivery Wagons.

C. H. White, Buick.....	2:29 $\frac{3}{4}$
W. W. Calder, Overland.....	2:38 $\frac{3}{4}$

#### May Make Sheepshead a Motordrome.

Horse racing without betting being somewhat akin to coffee without cream, owners of horse racing plants in New York state are trying to find new uses for their properties, when the anti-betting law goes into effect September 1. With the present popularity of automobile track racing throughout the country, it is not unlikely that some of the horse tracks will be converted into motor racing plants to bring revenue to their owners. One of the turf organizations, the Coney Island Jockey Club, is said to be contemplating the making over of its establishment at Sheepshead Bay into a motordrome when the death knell of betting is sounded. If such a decision is carried out, the Motor Racing Association, which conducts the Brighton Beach meets, will have a serious rival, for the two tracks are close together.

#### Sea Cliff Ferry for the Vanderbilt.

For the benefit of New England motorists who plan to attend the Vanderbilt and Grand Prize races on Long Island, the Motor Cups Holding Co. has arranged to have the ferry service across the Sound between Rye and Sea Cliff continued until October 16th, one month later than usual. This arrangement will save motorists from the East a trip of 60 miles, and will obviate their entering the traffic maze of New York City. On September 30th, the night before the Vanderbilt, and again on October 14th, the eve of the Grand Prize race, the ferry will run all night, leaving Rye on the even hour and Sea Cliff on odd hours. This service will be continued for 12 hours before and after the races, and ample boats will be provided to take care of the traffic.



**CHICAGO THIRTEEN PROVES LUCKY**

**Athletic Association Team Defeats Automobile Club Eleven in Annual Contest**  
—Two Days Run.

Contradicting the time honored superstition concerning the misfortune which is said to attach to the number thirteen, that cabalistic combination retrieved its unsavory reputation last week when the Chicago Athletic Association team of thirteen members defeated its motoring rival, the Chicago Automobile Club team of eleven men, in the annual interclub challenge contest on Thursday and Friday, 28th and 29th ult., by the comfortable margin of 21.7 points. The contest, the third for the trophy, was held over a 275 miles course between Chicago and St. Joseph, Mich., the latter being the night stop on the first day. The winning team was penalized a total of 55.3 points, while the losers ran up fines which amounted to 77 points. At the finish both teams sat down to a banquet at the expense of the losers.

While the contest generally is regarded as a fine example of amateur competition, this is not wholly true, for several members of the automobile club team are actively identified with the trade. Whatever hopes the C. A. C. men may have had of retaining possession of the trophy for another year were dashed to earth on the first day, when through a run of hard luck the team drew fines to the extent of 50 points as against the modest 9.81 penalties incurred by their rivals. However, the tables came near being turned on the second leg when the C. A. A. outfit struck some snags which cost them 45½ points, but as the automobile team also were docked 27 points that day the Cherry Circle contingent carried off the honors. Eight members of the winning team made perfect scores, while in the ranks of the automobile club team only three finished perfect.

The results in detail:

**Chicago Athletic Association.**

C. T. Kniseley, Palmer-Singer.....	5.06
S. W. Hamm, Locomobile.....	0
A. H. Coon, Stoddard-Dayton.....	0
W. F. Grower, Diamond T.....	0
C. C. Ireland, Stoddard-Dayton.....	0
W. H. Chamberlain, Rambler.....	44
R. B. Wilson, Franklin.....	3
H. H. Latham, Rambler.....	1.65
C. A. Briggs, Chalmers.....	0
W. C. Thorne, Palmer-Singer.....	1.5
F. W. Wentworth, Rambler.....	0
H. P. Jackson, Locomobile.....	0
L. T. Jacques, Peerless.....	0

Total .....55.31

**Chicago Automobile Club.**

N. H. Van Sicklen, Apperson.....	10
Charles Bosch, Stearns.....	1
W. C. Atwell, Stoddard-Dayton.....	7
Carroll Shaffer, Stevens-Duryea.....	0
E. T. Franklin, Moon.....	17

N. H. Van Sicklen, Jr., Apperson.....	0
R. O. Evans, Apperson.....	2
P. J. McKenna, Pierce-Arrow.....	0
F. X. Mudd, Ford.....	0
J. T. Brown, Velie.....	2
L. E. Myers, Apperson.....	38
Total.....	77

**Imposing Trophy for Elgin Road Race.**

Official sanction having been given by the A. A. A. for the Chicago Motor Club's national stock chassis events at Elgin, Ill., on August 26th and 27th, the club has designed a notable addition to the ever-growing list of imposing trophies for which auto-



THE ELGIN NATIONAL TROPHY

mobilitists may compete. It is to be known as the Elgin National Trophy, and is to be the prize in the big race on the second day, the event for cars under 600 cubic inches piston displacement. As indicated by the accompanying reproduction of the design it is a two handled cup, having laurel oak and water leaves for the main decorations. The trophy, which will stand 3 feet 8 inches above the pedestal and which will have a value of \$4,500, is designed to take six wreaths with inscriptions.

**"Dental Parlor" Limousine Appears.**

Carrying out the old custom of the traveling dentist in a modernized, up-to-the-hour way, one of the expert tooth pullers in Alsace-Lorraine, who grew tired waiting in his office for patients who would not come, ordered a large limousine car and had it fitted up as a complete dental office. He is now leisurely making a tour of the entire country with great business success.

**"NATIVE SONS" STAR AT ATLANTA**

**Postponed Speedway Meet Brings Out Home Talent—Stoddard and Church Each Take Three Events.**

Local drivers had everything to themselves at the meeting on the Atlanta (Ga.) speedway on the 30th ult., which was postponed from the previous Saturday on account of rain, none of the national cracks being present. While in several instances walkovers occurred, some of the events were chock full of action and were well worth going to see. Bill Stoddard and E. V. Church registered oftenest in the winning column, each capturing three firsts. A crowd of 3,000 attended the meet, the program consisting of 11 numbers.

Stoddard, who had quite a few close shaves during the afternoon, took the speed honors with a Fiat, negotiating two miles in 1:34½. Church in a Simplex was close behind with 1:37½. With a big National, Stoddard raked in the 10 miles match in decisive fashion, beating Woodside, Renault, by nearly a mile. Time, 8:39. As he pulled up Stoddard's front wheels were wobbling badly, the roller bearings being ground up. Despite a flat rear tire, he again got away with the goods in the 10 miles free-for-all, piloting a Fiat home first in 8:03½. Church in the Simplex was runner-up. The final, and what narrowly missed being the most serious of Stoddard's mishaps, occurred in another 10 miles free-for-all. While leading by a good margin the steering rod of the Fiat snapped and the front wheels swung around independent of each other. Stoddard shut down and managed to coast to a stop without bumping into anything or anybody. With Stoddard out, Church and the Simplex breezed away from the field, and after lapping Toole, in the S. P. O., finished over a mile ahead of Woodside, Renault. Time, 8:16½.

One of the best races of the day was the eight miles event for cars in the 161-230 division. Pulling away from the rest of the field in the second mile, McKinsty, E-M-F, and Cohen, Firestone-Columbus, had a merry little nip and tuck seance which sent the spectators into raptures. After seesawing all the way, they finished less than a foot apart, McKinsty being first over the tape. Time, 8:35. Church, with a Pope-Hartford, won the 231-300 class at 12 miles in 11:53½, and repeated in the 12 miles combination for 160 and under and 161-230 classes. He made the fastest time in both divisions, 12:33½.

Less than two hours before the meet began a fatal accident occurred, which cost the life of T. B. Dial. Dial, a well known local driver, was practicing in a Marion, in a light rain, and while moving at good

speed the car skidded, crashed through the fence and turned turtle, rolling down the inner embankment and pinning Dial beneath it. His head was horribly crushed and his body mangled, and he died in 10 minutes. The summaries:

Two miles time trials, free-for-all—W. J. Stoddard, Fiat, 1:34½; E. V. Church, Simplex, 1:37½; Ernest Smith, Buick, 1:55½; A. F. Lemon, Cadillac, 2:07½.

Six miles, 160 cubic inches and under—Won by W. A. DeWitt, Flanders; second, J. Atkins, Benz. Time, 6:38½.

Ten miles match, W. J. Stoddard, National, vs. John Woodside, Renault—Won by Stoddard. Time, 8:39.

Twelve miles, 231-300 cubic inches—Won by E. V. Church, Pope-Hartford; second, James Roach, Maxwell. Time, 11:53½.

Eight miles combination, two classes, for cars under 160 cubic inches, and cars between 161-230 cubic inches—160 class won by W. A. DeWitt, Flanders; second, H. H. Hall, Hupmobile; third, Jack Taylor, Fiat. Time, 9:20. 161-230 class won by K. T. McKinstry, Firestone-Columbus; second, Harry Cohen, E-M-F; third, M. Rambo, Maxwell. Time, 8:35.

Ten miles, free-for-all—Won by W. J. Stoddard, Fiat; second, E. V. Church, Simplex; third, John Woodside, Renault. Time, 8:03½.

Australian pursuit—Won by John Woodside, Renault; second, John Toole, S. P. O. Distance, 12 miles. Time, 11:11.

Eight miles, 161-230 cubic inches—Won by Harry Cohen, E-M-F; second, K. T. McKinstry, Firestone-Columbus; third, M. Rambo, Oakland. Time, 7:34½.

Ten miles, free-for-all—Won by E. V. Church, Simplex; second, John Woodside, Renault; third, John Toole, S. P. O. Time, 8:16½.

Twelve miles combination, two classes, 231-300 cubic inches, and 301-450 cubic inches—Both classes won by E. V. Church, Pope-Hartford; second, John Toole, S. P. O. Time, 12:33½.

Ten miles handicap—Won by K. T. McKinstry, Firestone-Columbus; second, M. Rambo, Maxwell; third, John Woodside, Renault. Time, 11:00.

#### "Mysterious Tour" for Premierites.

Inaugurating a new form of the time honored guessability contest, Premier owners of Indianapolis, Ind., will on Sunday, 7th inst., participate in what is styled "The Mysterious Tour." Assembling at a designated rendezvous, the motorists before starting will be handed cards containing a series of questions as to the probable destination of the run, the mileage, time allowance and kindred queries, answers to which they will be expected to write on the cards to the best of their ability. The information requested will be known only to two persons, and the directions for the run will be: "simply follow the confetti." Prizes will be awarded to those who guess nearest to the right answer.

## ONCE IS ENOUGH FOR OKLAHOMANS

Three Days Race Meet Proves a Frost Despite Good Competition—Crowds Would Not Attend.

Three days of racing on a half mile track proved an unprofitable venture for the Oklahoma City (Okla.) Motor Club which conducted a meet at the state fair grounds on the 28th, 29th and 30th ult., and aside from the financial loss, there were so many narrow escapes from accident that sentiment is strongly against the holding of any more meetings on such small tracks. The program was an extensive one, and while practically all the drivers were local men they furnished some good sport, but for some reason the meet did not attract the public. Honors were pretty well distributed among the contestants, with Potter, E-M-F, and Twohig, Ford, as the most consistent repeaters in the winning column. While there were several close calls the only accident occurred on the 30th, when Turkenkoff, in an Overland, crushed in the inner rail when a tire burst and suffered serious injury. The summary:

#### First Day—Thursday, 28th.

Five miles exhibition, Leigh Lynch, Jackson. Time, 7:10.

Five miles, Times trophy—Won by Potter, E-M-F; second, Turkenkoff, Overland. Time, 7:36½.

Five miles match, Funk, Marion, vs. Beard, Auburn—Won by Funk. Time, 7:23½.

Two miles exhibition, Turkenkoff, Overland, vs. Baumhofer, Overland Wind Wagon—Won by Baumhofer. Time, 3:18½.

Five miles, 30 horsepower machines—First heat won by Harold Lee, Regal; second, Bell, Mason. Time, not given. Second heat won by Lee; second, Potter, E-M-F. Time, 7:25½.

Five miles, 20 horsepower cars—Won by Jack Twohig, Ford. Time, 6:53½ for 4½ miles. Incorrectly taken.

#### Second Day—Friday, 29th.

Five miles, 30 horsepower machines—Won by Tinkler, Sellers; second, Potter, E-M-F; third, Regal. Time, 7:23.

Two miles exhibition, Baumhofer, Overland Wind Wagon—Time, 2:29½.

Five miles, 20 horsepower cars—Won by Jack Twohig, Ford; second, Swan, Hupmobile; third, Wallace, Hupmobile. Time, 7:40.

Five miles, free-for-all—First heat won by Potter, E-M-F. Time, not given. No others finished. Second heat won by Workman, Regal; second, Bell, Maytag; third, Allen, Maxwell. Time, not given.

One mile exhibition—Alviset, Knox, 1:22½.

Five miles, 40 horsepower machines—

First heat won by Beard, Auburn; second, Stanfield, Jackson; third, Funk, Marion. Time, 6:59½. Second heat won by Lee, Regal; second, Potter, E-M-F. Time, 7:26½.

#### Final Day—Saturday, 30th.

Two miles for midget cars—Won by Tinkler, Maxwell; second, Ward, Brush. Time, 5:04.

Five miles, 30 horsepower cars—Won by Peterson, Crawford; second, Potter, E-M-F. Time, not given.

Five miles, 40 horsepower cars—Won by Stanford, Jackson; second, Beard, Auburn. Time, 6:51½.

Two miles exhibition, Baumhofer, Overland Wind Wagon—Time, 3:22.

Five miles free-for-all—First heat won by Lee, Regal; second, Potter, E-M-F; third, Bell, Maytag. Time, not given. Second heat won by Peterson, Crawford; second, Workman, Regal. Time, not given. Final heat won by Peterson, Crawford; second, Lee, Regal. Time, 7:02½.

#### Jacksonville Celebrates with Races.

As befitted the occasion, motor cars played a prominent part in the opening of the new Atlantic boulevard at Jacksonville, Fla., on the 28th ult., a parade of decorated cars marking the formal dedication of the new highway in the morning, while a series of races were held on Atlantic Beach in the afternoon under the auspices of the Jacksonville Automobile Club. Local owners competed in the races, which were held over a measured mile course, and some exciting brushes occurred, although the winners registered by safe margins. The feature event was a 15 miles free-for-all, which was won by J. J. Logan, National, F. W. King, American, taking second. The meet was attended by a large crowd, over 300 machines being parked along the course. The winners received as prizes silver cups and other articles which were donated by the local tradesmen and hotels.

#### The summaries:

Two miles, 20 horsepower cars—Won by Roy Corbett, Buick; second, D. J. Conroy, Buick; third, H. B. Race, Ford. Time, not taken.

Two miles, 20 horsepower cars—Won by E. B. Sinkler, Hupmobile; second, Dexter Kelly, Ford; third, J. E. Johnson, Hupmobile. Time, 2:55.

Two miles, 40 horsepower cars—Won by W. M. Stinson, Oldsmobile; second, F. C. Miller, Premier; third, G. F. Parsons, Pratt-Elkhart. Time, not given.

Five miles 30 horsepower cars—Won by Dexter Kelly, Cadillac; second, J. A. McRae, Jr., Oakland. Time, not given.

Fifteen miles free-for-all—Won by J. J. Logan, National; second, F. W. King, American. Time, not given.

One mile, 20 horsepower cars—Won by E. B. Sinkler, Hupmobile; second, J. E. Johnson, Hupmobile; third, Dexter Kelly, Ford.

## ENGINEERS IN SESSION.

(Continued from page 290)

hope not only to eliminate the noise of gears so used, but to materially lengthen their life."

## THE NOMENCLATURE OF PARTS.

Much has been said of standardization in connection with automobile development, and many efforts have been made to standardize certain parts and equipments which are of such general use as to require definite classification. But hitherto automobile terminology has been permitted to expand without any sort of regulation. The result is a great confusion of nouns and a disposition on the part of several of the more able manufacturers to establish their own glossaries on an independent basis of their own choosing. In an effort to remedy this condition of affairs, F. E. Watts presented the subject before the society.

"The automobile business has grown far too rapidly for its 'dictionary' to keep pace with it," said Mr. Watts, in part. "Probably all of us who have helped in the production of detail drawings, in the making of parts in the factory, in sending repairs to agents or owners or in writing about any of these, have noticed the lack of uniform names for parts and operations, and have wished that we had at command words sure to be understood.

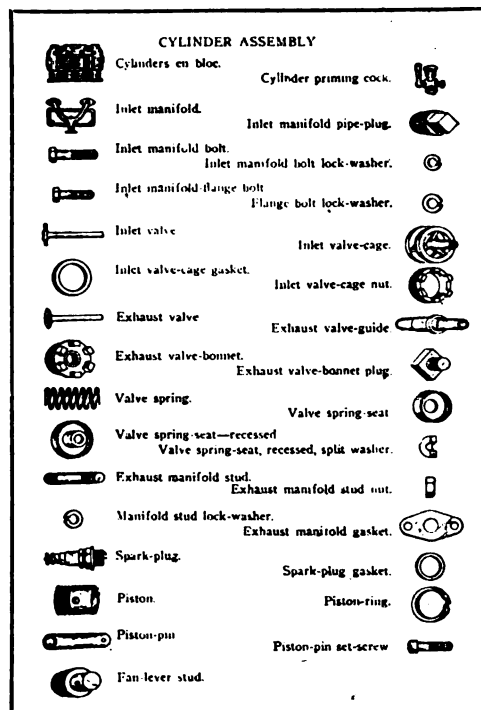
"Of course, we have a sort of glossary, but it has grown so rapidly that there are often several names for the same part. For instance, the piece which supports the front wheel is variously called 'steering pivot,' 'knuckle,' 'front wheel spindle,' etc. The rod which fastens two of these together is known as 'drag-link,' 'steering link,' 'reach-rod,' 'steering cross connection,' 'cross-rod,' 'tie-rod,' etc. Passing to the motor, we have 'wrist-pin,' 'gudgeon-pin,' and 'piston-pin,' for the same part; while the piece which connects this with the crank shaft is sometimes called the 'pitman,' though more often known as the 'connecting-rod.'

"While the alphabetical order of arrangement of parts is the most natural, there are so many pieces to an automobile that such a list is too long for handy reference, unless it is subdivided. Fortunately the manner in which the cars are assembled naturally provides such divisions, which, so far as I have observed, are used in making up parts lists in all motor car factories.

"The following headings are those taken from the price list of repair parts of the Chalmers '30' 1909 model. This parts list was selected because it is unusually complete, and also illustrated with sketches of the parts:

Accelerator Assembly.  
Axle Assembly (Front).  
Axle Assembly (Rear).  
Propeller-Shaft Assembly.  
Body Assembly.  
Clutch Assembly.  
Dash Miscellany.  
Dust-Pan Assembly.

Equipment Miscellany.  
Fan Assembly.  
Frame Assembly.  
Gasolene-Tank Assembly.  
Gear-Shift-Guide Assembly.  
Hand Lever Assembly.  
Hood Miscellany.  
Ignition Miscellany.  
Motor Assembly (which includes)  
Camshaft Assembly.  
Carburettor Assembly.  
Connecting-rod Assembly.  
Crankcase Assembly.  
Crankshaft Assembly.  
Cylinder Assembly.  
Oil Pump Assembly.  
Timer Assembly.  
Valve Rocker-arm Assembly.  
Water-pump Assembly.  
Mudguard and Running-board Assembly.  
Muffler Assembly.



Muffler Cut-out Control Assembly.  
Pedal-control Assembly.  
Radiator Assembly.  
Rock-shaft and Pull-rod Assembly.  
Sight-feed Oiler Assembly.  
Spark-control Assembly.  
Spring Miscellany.  
Starting-crank Assembly.  
Steering-gear Assembly.  
Steering-reach-rod Assembly.  
Transmission Unit Assembly.  
Transmission-brake Assembly.  
Wheel Assembly (Front).  
Wheel Assembly (Rear).

"The majority of these groups will be found on any gasolene car and the parts included in any of them are not too numerous to handle readily. So if we should take each of these groups and name the principal parts which compose it, the rest would follow easily enough.

"The smaller parts, which differ more in the various cars than the larger ones, can be named by a system, somewhat as follows: Where there are several parts which are very similar (perhaps performing the same functions on opposite sides of the

car), they can often be distinguished by their location in the car. These locations should probably be referred to from the point of view of a person sitting in the car, facing forward. Common words of location are: Front and rear, right-hand and left-hand, upper and lower, etc. Usually the smaller parts can be named after the part or parts they are used with. This applies to shafts, bushings, washers, collars, bolts, nuts, studs, pins, pipe-plugs, oil and grease cups and similar small parts. Where several small parts somewhat alike are used with the same large piece, distinguishing prefixes can usually be readily thought of, such as: Long, short, large, small, round, square, castellated, flanged, lock, retaining, thrust, felt, rubber, etc. A standard set of such locating and distinguishing terms can probably be developed.

"The foregoing suggestions will be of little practical benefit unless some method can be found for collecting and arranging them into general use. It has been suggested that a committee be appointed to take this matter in hand, and that it should have enough members that the work can be divided, each covering some small field. The list of standard names should, of course, include at least the principal parts of all kinds of gasolene, electric and steam automobiles.

"After these shall have been compiled, and approved by the society, it is proposed that they shall be printed in the form of a pamphlet, each piece being illustrated by a sketch, so as to make identification certain. A method of arrangement of names and sketches is illustrated in the 'Cylinder Assembly List,' taken from the parts list before referred to; by courtesy of the Chalmers company.

"The repair departments of all automobile companies will appreciate this work. For with this 'dictionary' in the hands of the engineering department and in the hands of every agent, and of every motor car owner, it is clear to see that an endless amount of confusion will be avoided in the placing and filling of repair orders."

## TEST OF A FRANKLIN MOTOR.

In an introduction to the test of a 20 horsepower Franklin air-cooled engine, Prof. R. C. Carpenter explains: "In the question of design of a high-speed motor, there is no point of greater interest than that denominated 'volumetric efficiency.' This term is applied to denote percentage of the cylinder displacement which is filled with air at atmospheric pressure at the beginning of the stroke." The paper, which deals with the results of a thesis test carried out by L. R. Evans and R. P. Lay, in 1907, at Sibley College, Cornell University, carries the study of this factor to the last degree. The Franklin motor tested was run with both concentric and ordinary valves, and also with two different styles of cylinder, one having the cooling flanges

cast integrally and the other having them made in the form of phosphor bronze rings shrunk over the plain exterior of the cylinder.

The results show that at 700 revolutions, when the cylinder was cold, about 94 per cent. of the cylinder volume was filled at the beginning of the stroke, whereas at 1,500 revolutions only about 68 per cent. was filled. When the cylinder was hot the efficiency was considerably lower. It is concluded that the cylinder probably would be completely filled when cold at about 600 revolutions, and when hot at about 400.

#### BEARING DESIGN VARIATIONS.

Revealing one direction in which it may be possible to extend the principle of standardization with profit to the industry as a whole, the paper presented by D. F. Graham on the variation of current practice in anti-friction bearings is particularly noteworthy. Taking the various styles, sizes and arrangements of ball and roller bearings employed in 121 different car models, as produced by more than 50 different manufacturers, the variation in practice is shown by the arrangement of appropriate groups. In each group the number of different types of bearing used is tabulated as well as the maximum, minimum and average sizes of balls and the locations in which they are used. Concerning the subject, the author says:

"Error in motor car design has been a tendency towards bearings of special chamfer, bore or other dimensions. The writer, from his experience, believes this is one of the most subtle of errors, which at first appears an easy way out of some problem in design, but later becomes a veritable mountain of trouble, not only to the bearing manufacturer, but very much more to the user, who, when he comes to order repairs is put to great annoyance and delay. It is surprising what can be done toward reducing the number of sizes if undertaken with a will."

#### METAL HARDNESS TESTS.

Discussing the question of hardness with a view to promoting standard conventions in its use, A. F. Shore, who is the inventor of the scleroscope, emphasizes the existing tendency to confusion by enumerating no less than six different varieties of that property which, in one way or another, may be considered. They are, "tensile hardness," "cutting hardness," "abrasive hardness," "elastic hardness," "shock hardness" and "static hardness." But, "according to my researches," he says, "there is but one kind of hardness which is really important, and for this final decision the American automobile engineers deserve a large share of the credit. . . . This kind of hardness is the one which may be defined as rigidity and resistance to penetration or deformation. It really does not matter whether a specimen can be filed or

not, as long as hardness consistent with strength can be obtained."

In the scale of hardness standards presented by the author, the grades are all given in connection with the elastic limit which they represent. Hence, the test for hardness is applied directly in arriving at the properties of a specimen, and constitutes a valuable abridgement of the older laboratory test methods which it supplants commercially in many instances.

#### FOR A PATENT APPEALS COURT.

In presenting the cause of the proposed court of patent appeals, E. J. Stoddard has found it necessary to step aside for a moment and consider the engineer's social relations. Considering this inviting topic, he suggests the point that the engineer has a duty to perform to society and that society as yet does not wholly reciprocate by affording the engineer adequate encouragement and protection in his labors and achievements. The central idea is that our present patent system, if it is to be improved, must be subjected to a slow and advised process of revision. The establishment of a court of patent appeals, he believes, is a step in the right direction.

"Our Federal judges are able and honorable men," he remarks. "Many of them are, perhaps by education, taste and character, not adapted to cope with the mixed questions of law and engineering that arise in patent cases. On the other hand, it is believed that judges can be selected, as provided in the (pending) bill, who will be able to understand and decide justly a case that is properly presented to them, understanding and actualizing the spirit of the same." But referring to the perplexity of the situation, he adds: "In patent cases the questions of fact are questions of mechanics, engineering and science, and they are so interwoven that the dividing line vanishes. The value and meaning of a decision as a precedent depends, often, upon the facts."

#### OPPOSING TYPES OF VALVES.

"The imperfection of poppet valves is probably a leading reason for the revival of the growing interest in silent valve systems," says Eugene P. Batzell, in the course of his extended and very thorough examination of the subject. "Many constructions of such valves are appearing. But only few of these have been built; and still fewer have been subjected to tests." After investigating the relative advantages of numerous valve systems, he arrives at this conclusion:

"The (port) openings obtained with poppet valves are smaller and their diagrams of openings are also less favorable than with most of the other valves mentioned in this article. Poppet valves of large diameter and small lift are preferable to poppet valves with higher lift and small diameter, because with the same maximum size of

opening the larger valves, depending on the cam shape, will have a better opening diagram. Rotary valves driven at constant speed all show the same character of opening diagram, and the one which, besides giving the desired size of openings, permits the simplest and most reliable construction, and is therefore to be preferred. The Knight valve must be considered superior to the poppet valve, but not superior to some rotary valve constructions."

#### MOTOR TRUCKS FOR RAILWAYS.

Considering the application of motor trucks to railroad service, T. V. Buckwalter applies a triple classification, namely: Trucks utilized to replace box cars in the transfer of freight between different stations in the same city, trucks to replace horse-drawn vehicles in the transportation of both passengers and merchandise on the public highways, and trucks to replace manual labor in the handling of baggage and mail in large stations, machinery and supplies in railroad shops, and in the transfer of freight in large freight and transfer stations. The subject is considered in its broad, business aspects, as well as from the purely engineering viewpoint, and its treatment is rendered intelligent by reason of the experience of the author in the work of the Pennsylvania railroad, which is making extensive use of electric vehicles in the third order of classification.

#### CARRYING THE EXTRAS.

What havoc annually is wrought in the general miscellany which the average motorist bestows about his machine under the classifications of tools and supplies is beyond calculation. But it is certain that the actual loss is considerable, while inconvenience arising from the discovery just when such utilities are in demand that they have been rendered useless through rough treatment further emphasizes the importance of giving proper thought to the manner in which they are cared for. The subject was brought to the attention of the engineers by H. H. Brown.

"One point that might easily be improved is the method of carrying lubricants," he says of one phase of the subject. "No particular place seems to have been chosen by either makers or users for carrying this reserve supply. The action of oil on rubber needs no comment. Oil cans are almost certain at some time to leak; or, if they do not, in pouring the oil to the motor or squirt-can, some of it will almost invariably slop over, and the chances are strongly against the can being wiped perfectly dry before being replaced in whatever storage place is assigned to it.

"From this point of view the tool box on the running board is not so bad a place in which to carry this oil reserve. But one does not care to get the hands more or less covered with oil, whenever a tool is required for some simple adjustment such as

removing a spark plug. A step in the right direction was made by a well-known dealer in oils. This maker provided, free to consumers, a little bracket, complete with strap, which could be affixed to the running board. Even if the can should spring a leak, the greatest damage that could result would be a slippery running board; and a liberal dose of sand or dust would easily remedy this fault.

"However, it has seemed to the writer that the best place for carrying the supply of reserve motor lubricant is either under the motor bonnet or under the floor boards. In either of these positions it would be near the place of use, would occupy room practically available for no other purpose, and in event of leakage, could do no damage. Of course, it might in some cases be necessary for the maker to provide a can of a special form, and with suitable brackets and fastenings for holding the same securely in position."

#### USE OF CORK-INSERT PULLEYS.

Cork inserts are familiar in clutch construction, but the paper presented by Lawrence Whitcomb brings out the fact of their utility in belt transmission service. No less than 20,000 cork-insert pulleys and frictions are in use in textile mills, he states, although up to this time they are used in but comparatively few automobile factories. The peculiarly elastic, resistant and durable qualities of cork, as well as its high coefficient of friction, are what impart to it its peculiar and almost surprising fitness for use as a friction material. It is employed in two ways, whether in automobile clutch service, or in the factory uses with which Mr. Whitcomb's paper deals more particularly.

In the so-called "all-cork contact," the cork alone comes in contact with the opposing surface, and so is called upon to transmit all of the power; this it continues to do for long periods of service without showing wear, by reason of the employment of large areas of contact. In the "composite construction" smaller areas of cork are used, and the material is so arranged that at low pressures only the cork contact will be in effect, but that when the pressure is increased, the cork will be compressed sufficiently to permit the surrounding wood, metal or fiber to engage. The latter arrangement is the one most familiar in automobile service.

#### Red Bands as Speed Reminders.

So that passing motorists may be reminded of the existence of local speed ordinances, the practice has been adopted in England of painting a red band, 18 inches deep, on every public lamp post within restricted districts. Three different county councils have recommended the system to the minor authorities under their jurisdiction and the plan is meeting with considerable favor.

## VANCOUVER NEEDS REPAIR PARTS

### Influx of Automobiles Creates Demand for Replacements—American Consul Has a Business Suggestion.

Vancouver, the capital of British Columbia, according to the report of Consul-General Geo. N. West, is in great need of an establishment for the supply of automobile parts, the sudden demand for these being caused by the great influx of automobiles into Vancouver and the surrounding territory.

"The increased sale of American automobiles," says the consul, "has been large during the past winter and spring, and sales are still being made in large numbers, more than 250 new machines having been brought into the city up to April 15, while, from the best information obtainable, there were not more than 35 or 50 new machines brought in during all 1909. With the rapid growth of the city, covering so much territory, the distance to be traveled from one section to another being great, the business men are finding these machines almost indispensable for quick transportation, and although the roads outside the business district and inside the residential section are generally unpaved, it is found that autos are better adapted for transportation than carriages drawn by horses.

"The majority of the cars used are four passenger, although there are some five and six passenger cars in use, and from 20 to 40 horsepower, four cylinders. The lighter cars of 20 horsepower are giving good satisfaction, as they are not so hard on springs, axles, and tires on the rough roads. The price paid for cars ranges from \$2,500 to \$3,000. Nearly all of them are American, few European cars being used.

"It is noted that quite a number of runabouts, carrying only two persons, are seen on the streets, these cars proving handy for real estate dealers to take prospective purchasers of property to view the same, and their cost and maintenance is much less.

"Two dealers handle second-hand cars almost exclusively, as two-year-old patterns pay duty only on the actual cost price of same, but if of the 1909 pattern and bought in 1910, they must pay the same duty as a new 1910 car. Quite a number of 1907 and 1908 cars are thus brought into this place.

"The duty on automobiles imported from the United States and Germany is 35 per cent. ad valorem; on those imported from the United Kingdom, 22½ per cent.

"No establishment here carries a full supply of parts for repairs to auto cars, and owners have great delay in procuring parts that may be broken, having to send to the manufacturers therefor. Tires of various

makes are more generally carried, and they are mostly of American make. The suggestion made in regard to a firm being established for carrying a general supply of parts for repairs to cars will probably be acted upon, as this office has been informed that dealers after thinking the matter over and taking into consideration the large increase in cars in use, and the prospects for the future, came to the conclusion that such an establishment had become a necessity and would prove successful.

"Taxicabs are becoming popular in Vancouver. Three of these cars were brought here last fall for hire as public vehicles, and since then the number has increased to 16, while still more have been contracted for."

#### Subsidiary for U. S. M. Building.

The United States Motor Co. has formed a separate and subordinate corporation for the ownership of the big Tichenor-Grand building on 61st street, near Columbus circle, New York City, which structure when remodeled is to be known as the United States Motor building and which is to house the general offices and sales headquarters for the merger concern, although some space will be leased to outside concerns. The company in whose name the property is to be held is styled the Columbus Circle Realty Co. Stock to the extent of \$225,000 is offered to United States Motor stockholders, while a 5 per cent. mortgage for \$425,000 is placed on the property, the basis value of the property being placed at \$650,000, which was the price paid, and which, according to the company's official statement, is \$110,000 less than it cost three years ago.

#### Smooth Clearance at Entrances.

It is rather important to make sure that entrance and exit doorways to garages and repair shops shall be entirely free from small obstructions, such as nails, bolts, hooks or projecting latches, which might tend to catch in the top leathers of carelessly driven cars passing through. Although the clearance may be supposed to be ample there is always the chance that a thoughtless twist of the steering wheel or the rebound of a machine driven too rapidly across the sill may cause serious defacement to the machine.

#### Shifting Tires to Equalize Wear.

Motorists should not be afraid to shift their tires about from wheel to wheel. If a tire shows more wear on one side than on the other, it may be reversed; if one rear tire shows more wear than the other, they may be exchanged; partly worn rear tires may be put to good use on the front wheels. Besides effecting no small economy in tire-life, the precaution ensures the maintenance of the rims in good condition and so does away with one prevalent cause of delay in making repairs on the road.



## ANOTHER "WAR OF THE STATES"

**Maryland's New Motor Law Makes Trouble  
—Nebraska and Iowa at Odds—Re-  
taliating and Reprisal.**

If a foreigner unfamiliar with conditions and possessed of the notion that the United States of America is a free and closely knit republic—if such a man had the run of the press of this country he probably would wonder if something akin to civil war was not being waged between the states.

The trouble between Massachusetts and Rhode Island, and the general attack on New Jersey—the original "hold-up" state—

to the West, a number of Omaha (Neb.) motorists who crossed the river into Council Bluffs, Ia., were arrested in the latter place. Two of them were Nebraska automobile tradesmen and they were discharged on the plea that they were using "demonstrating machines" despite the fact that these machines were used regularly by their families. As the Nebraska law makes no reference to "demonstrating cars," the Council Bluffs court held that their failure to display numbers was not a violation of the law of their state and that the Iowa reciprocity clause did not apply.

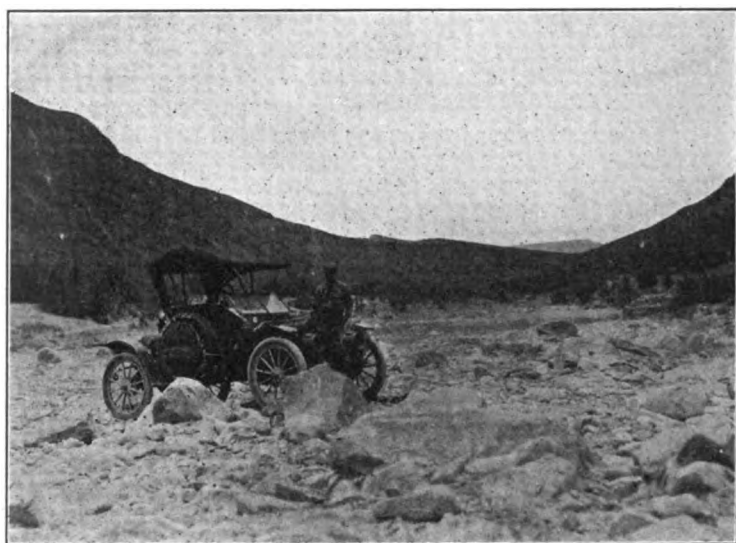
### Finds Roads Worst Under Third Flag.

While Mexico has no monopoly on vile roads, the difficulties of automobile travel

## CANNOT CLOSE BOSTON'S PARKS

**Mayor Fitzgerald's Attempt is Defeated by  
the Highway Commission—Motorists  
in Force at the Hearing.**

Mayor Fitzgerald's efforts to close the Boston parks and parkways to automobilists to "get even" with the state of Massachusetts because of its refusal to permit the city to share the money collected for registrations and licenses have not had any more effect than was expected. His application to the Massachusetts highway commission for permission to close the parks "threw a scare" into the Bay State



SUGGESTIVE SCENES IN THE FLANDERS "UNDER THREE FLAGS" EXPERIENCE

and the manner in which its citizens who use automobiles are being legislated against and held up and pounced upon in neighboring states has been followed by "war" between Pennsylvania and Maryland and Maryland and the District of Columbia. Maryland's new automobile law contains a peculiar reciprocal clause, and Pennsylvania having decided that it is not truly reciprocal, has given notice that no Marylander may enter its confines until he shall have paid its "admission fee." Maryland similarly has notified the commissioner of the District of Columbia that residents in the latter place will not be accorded the free use of its roads; they must pay the full registration fee or remain away. John T. Hyatt, a Washington (D. C.) motorist, already has been arrested and fined for failure to pay the fee and has appealed his case; he will attack the constitutionality of the Maryland law, alleging among other things that it "obstructs passage to and from the National Capital." The District commissioner is planning reprisals. Under the District regulations, no fee is exacted of visiting automobiles, although they are required to register their cars on arrival.

The spirit of warfare has penetrated even

in that country, as discovered by the pilots of the Flanders "Under Three Flags" car, have proven worse than anything on this side of the Rio Grande. The little runabout, which is nearing Mexico City, had a hard time crossing ruts and ravines, following goat trails across the mountains, bumping the ties of railroad bridges, plowing through almost bottomless sand and picking its way along the bed of a river among a profusion of rocks of all sizes and shapes. The photographs shown herewith tell their own story. On many occasions picks and shovels had to be requisitioned in order to render a sand hill "climbable," or to open a path. Rock-strewn desert, where water is scarce and precious, where the dim trail disappeared among the cactus and the sand, has been the kind of landscape through which the Flanders traveled—and its occupants are glad the task they set themselves has been nearly accomplished. But though the roads were bad, the travelers had nothing to complain of when it came to the question of hospitality. Although water is so precious in the arid districts that it has to be carried in for many miles to the haciendas, gallons of it were freely presented to the tourists.

motorists, and they were present in force on the 27th ult. when the application was argued and when they opposed the application; none of the three highway commissioners, however, was sufficiently impressed with the importance of the occasion to be personally present; they were represented by deputies. There was much heavy oral artillery brought to bear against the mayor's proposal, but he himself was the only speaker in its favor, and he handled the subject rather gingerly and was inclined to be evasive when pressed for direct replies. The Highway Commission has formally given its decision against the city, and Mayor Fitzgerald will have to repair the park roads with the money at his disposal, and motorists will continue to be free to use them.

### Nebraskans Show High Car Ratio.

It is estimated that the state of Nebraska now has one automobile for every hundred inhabitants, the total number of cars registered being 12,080. During the first six months of the present year the number of registrations was 3,492, or more than twice the number recorded during the whole of 1909.

## ENLARGEMENTS IN COLE MODELS

**Dimension Increases that Make for Greater Capacity and Comfort—Four Types of Body are Offered.**

Adding small amounts to a number of the principal dimensions of the chassis and remodeling the body designs has permitted the Cole Motor Car Co., Indianapolis, Ind., to announce a more pretentious product than its previous one, in the new models which are practically ready for delivery. Despite the slight increase in price, power

ing and contracting type, and is mounted on the rear wheels.

The frame is of double-drop form, of heavy channel section. Semi-elliptic springs are used in front and scroll-end, full elliptics in the rear. The built-up type of worm and sector steering gear with standard motor control on top of the column is used. The bodies are all constructed of sheet steel laid upon solid ash frames.

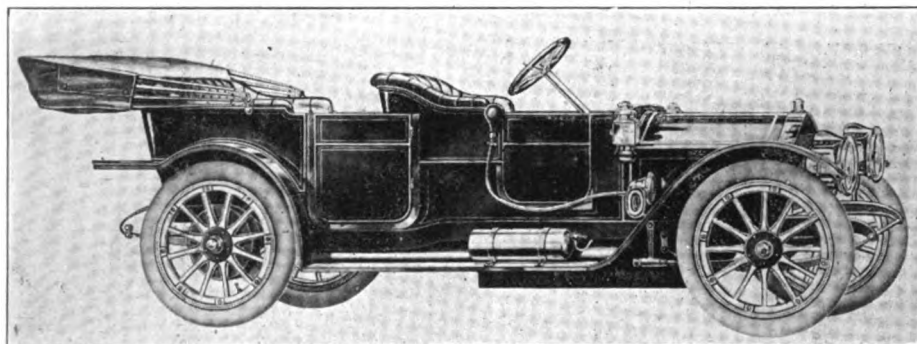
In regard to the distinction between the forthcoming models and those which are now current, these are the more important alterations which have been introduced: Besides slightly altering the design of the valves, the cylinder dimensions have been

door effect, in the four door patterns, with raised arm rests. Considerable distinction is lent to the appearance of the models in question by reason of the use of light panel moldings and concealed latches on the doors and also because the double drop in the frame renders the front door sills considerably higher than the rear ones.

The touring car has a low dash which is carried far enough forward to leave room for a narrow vertical panel between the door and the front angle of the body. The small tonneau has been given the racy effect which results from a rakish steering column angle and a hooded dash which is brought well back and upward. Although somewhat similar in general form, the two models thus are of very different appearance.

Of the other two bodies, the "Flyer" retains the deep skuttle dash, high sides and rear oval fuel tank, which distinguished it as originally produced. With the storage touring trunk which is carried on the deck behind the tank and the spare tire carrier, top and other equipment, the machine is entirely distinctive in appearance and pleasing as well. The "Palace" touring car retains more nearly the lines of the standard American product.

Among the several suggestive specifications, not already mentioned, are the size of the brakes, which are 12 inches in diameter by  $2\frac{1}{4}$  inch face, or of equal diameter with the master clutch and a quarter-inch narrower of face. Both front and rear springs now are 2 inches wide, as against  $1\frac{3}{4}$  inches on the former product, and the lengths now are, respectively, 40 and 38



NEW COLE "30" FOUR DOOR TOURING CAR

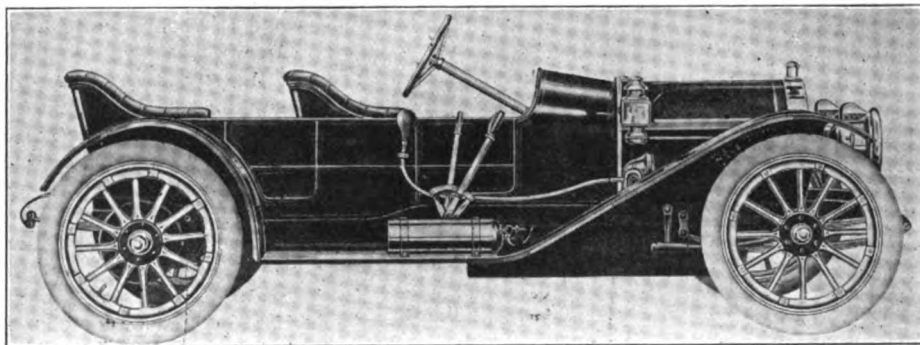
and weight, however, the product still remains the Cole "30." As such it is to be produced in four styles with a single chassis used as a basis for the different forms.

The styles will be known, respectively as the "Palace" touring car, "Flyer" torpedo roadster, "Fore-Door" small tonneau and "Fore-Door" touring car. The two first-named will sell for \$1,600 each, which represents an increase of \$100 in price over the cost of the previous models. Due to the nature of the four door models and their style of equipment, both the small tonneau and touring shapes will sell for \$1,650.

In general method of construction and detail arrangement of parts the product remains about as heretofore. The power plant is of the unit type, compact and neatly constructed. The four-cylinder motor is water-cooled, fired by dual ignition, and generally put up and equipped in approved fashion. The clutch is of the leather-faced cone type, fully encased in the unit transmission housing. The gear set is of the selective sliding pinion pattern, and affords three forward speeds in addition to the reverse. The driving shaft is led direct to the bevel driving gears on the differential group of the full floating rear axle.

The latter, it may be mentioned in passing, is roller bearing mounted. The front wheels and steering pivots, on the other hand, are carried on ball bearings. The braking equipment is of the double, expand-

increased from 4 by 4 inches to  $4\frac{1}{4}$  by  $4\frac{1}{2}$  inches, bore and stroke. These changes have resulted in an increase in the rated output on test from 30 to 36 horsepower. Wheel bases have been brought out 7 inches, that specification now being 115 inches, in consequence of which a corres-



COLE "30" NEW SMALL TONNEAU TYPE

ponding increase in the amount of body space available has been brought about. The new models also have 34 by 4 inch tires, as against 32 by  $3\frac{1}{2}$ . The clearance, however, remains the same as before, that is to say,  $10\frac{1}{2}$  inches. The new frames are 140 inches long by 33 inches wide, as compared with 134 by 32 inches. In connection with the addition of considerable metal the gross weight of the car has been brought up from 2,100 pounds to approximately 2,500.

The new bodies have the straight line

inches, front and rear, which were the former dimensions. As before, the gasoline tank holds 14 gallons, and the oil tank six pints.

Returning for a moment to the construction of the power plant, the accompanying illustrations afford a good idea of its construction. The carburetter and both sets of valves are mounted on the left side, the right thus being left clear, save for the water piping, and affording ample room for mounting the magneto, which is driven from a special gear, actuated from the two-

to-one group at the front of the engine and completely enclosed within a special compartment of the crank case. The large size of the fly wheel housing shows the relatively great diameter which has been chosen in arranging the balance of the plant; the arms, which are cast integrally with it, serving for two of the four supporting points by which the unit is mounted on the sub frame. The other supports are at the front end of the crank case. The gear casing, which is unusually compact, overhangs at the rear of the power unit and so comes well forward under the foot-board of the machine.

In the matter of equipment, the Cole company now provides Firestone demountable, detachable rims, oil dash and tail

## FINDS NEW CAUSE FOR VIBRATION

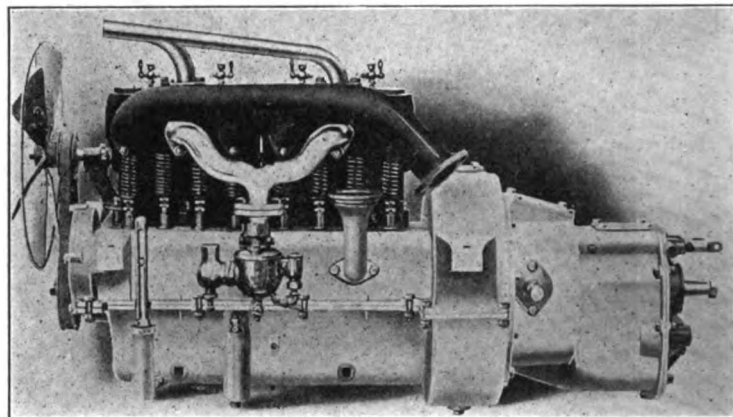
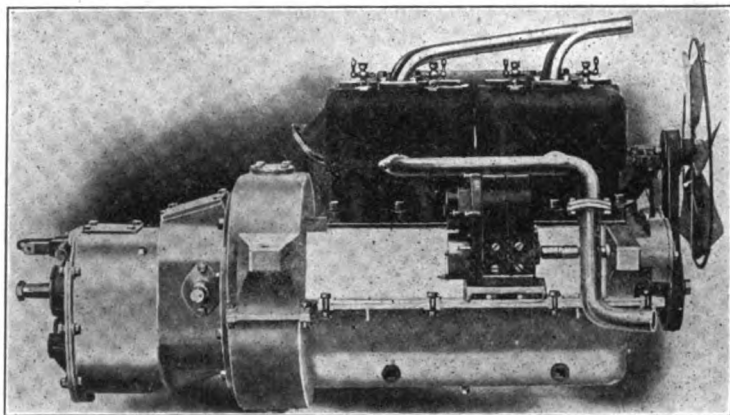
**Expert Discovers Effect of Momentary Slippage—Method by Which Trouble May be Remedied.**

Sometimes an otherwise peaceable and well-disposed engine appears to develop a most perplexing tendency to clatter and shake when run at high speeds on level or only slightly inclined roads, the cause of the difficulty being extremely difficult to locate. That such vibration may not be in the engine at all, but may arise from conditions entirely local to the clutch, is the observation of one expert.

level when the engine is exerting something approaching to its full power. . . .

"The other point which is often forgotten is that the irregularities of road surface are always tending to set up slight distortions of the frame of the chassis, and this, taken in conjunction with the high engine speed giving full power, and a slightly weak clutch spring, will encourage the partial slipping we have referred to by the ever present tendency of the driving and driven portions of many clutches to become out of alignment with one another. The presence of an efficient universally-jointed shaft between the engine and gear box of course eliminates this tendency to malalignment.

"Another insidious cause of coarse running of good engines is in the clutch cone.



RIGHT AND LEFT SIDE VIEWS OF THE COLE "30" UNIT POWER PLANT

lamps, a pair of short-couple gas headlights connected with the generator, horn, tools, tire repair kit, pump and jack.

### Provides Special Light for Number.

Among the several manufacturers who are paying especial heed to the legal requirements of illuminating registration numbers is the Pierce-Arrow Motor Car Co., Buffalo, N. Y. The standard Pierce-Arrow lighting equipment on all the new models includes no less than six lamp fixtures. As in the past, combination oil and electric dash and standard tail lights are employed, in addition to the acetylene headlights. The latest addition is a specially constructed electric lamp which is so mounted and enclosed by a slotted tubular reflector as to shine directly on the number plate and illuminate it brightly.

### Lowell Abandons Road Race Project.

After a long fight in the face of innumerable obstacles placed in its way by the opposition element, the Lowell (Mass.) Automobile Club has abandoned all efforts to repeat its annual road races on September 15th and 17th, over the Merrimack Valley circuit. The threatened injunction proceedings by the remonstrating residents along the course being the culminating objection which caused the club to drop the project.

"As a rule the objectionable sensation is a combination of very small but very noticeable vibrations communicated through the footboard and accompanied by a good deal of noise—more than the speed of the car seems to warrant," he explains. "In cases of this sort the trouble is very often due to a slight slipping of the clutch. It is more likely to occur with a plate clutch than with a leather cone clutch, but it may, and does, happen with both. When the engine is running fast, and, of course, developing high power, it may develop just a little more than the clutch can transmit without slipping. The engine does not race as it would do if the clutch were much too lightly adjusted, but a very small amount of slip takes place at each impulse, thus setting up this insidious and penetrating vibration. The remedy for this is to tighten the clutch spring slightly.

"At first sight it may seem improbable that any but a negligent driver could have the clutch slipping in this way, because one is apt to argue that as the clutch does not slip noticeably uphill it is extremely improbable that it will slip upon the level. Two points are forgotten, however. One is that on the level the engine may be running faster and therefore giving more power, so that it is quite possible to have no sensible slip uphill and yet to have the small degree we have mentioned on the

We say good engines advisedly. If a man owns an engine by a good maker he naturally assumes that it is well balanced, and his confidence is justified in the majority of cases. If, however, he find more vibration than should reasonably be expected at high or fairly high engine speeds, it is quite worth while to look to the balancing of the clutch cone. It may be noticed on examining the flywheel that it has one or more holes drilled in its rim and sometimes in its disc. These holes have been drilled to balance the wheel, so that any slight inequalities of density in the flywheel as a mass or irregularities due to imperfect casting may be removed, after it has been carefully tested and ascertained from which part of the wheel the unbalanced weight should be taken. On the other hand, the clutch cone—that is, the male portion of the clutch which carries the clutch leather—is not always attended to by otherwise careful makers. They may balance their flywheels very carefully and yet forget that the clutch cone also requires similar treatment. The disturbing effect of an unbalanced flywheel is of course likely to be much more serious than that of an unbalanced clutch, owing to its greater mass. At the same time trifling differences in the weights of the clutch cone arms or sections of the rim will and do upset the balance of modern high speed engines."

**MEETING AVERAGE SERVICE NEEDS**

**Clark Produces a Medium Capacity Car for the Purpose—Original Features in Transmission and Oiling.**

Whatever difficulties are supposed to be inherent to the commercial vehicle problem, it generally is conceded that the construction of a perfectly satisfactory car for medium and light loading purposes is ex-

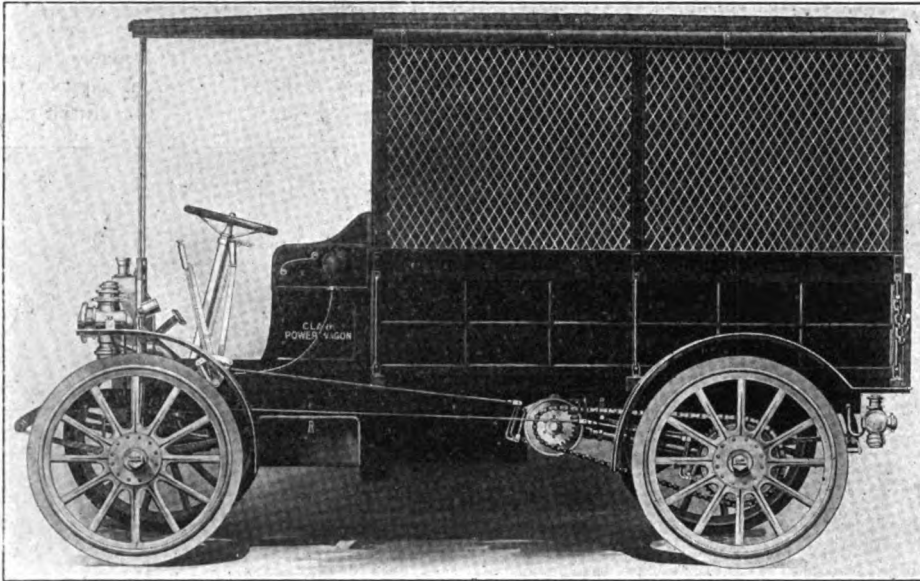
without alteration to the gear. In the matter of tires, the standard equipment is of the side-wire solid variety, 36 by 2½ inch size, Firestone "Q. D." demountable rims being employed. At a slightly advanced cost, the same rim equipment may be used with 36 by 3½ inch pneumatics. The wheel base is 102 inches.

The frame is of pressed steel 3-16 inch thick, 23-16 inches wide and 3¼ inches deep. The front, center and rear members are reinforced by heavy gusset plates and

mission counter shaft and one on the rear wheels. Both sets are of the constricting band type, the former being the service members. These have 9 inch drums with 1¾ inch face, while the emergency brakes have 13 inch drums and 2¼ inch face.

The motor, which is located in front and under the foot board and seat, embodies a number of original and promising features. It is of the horizontal opposed type, with 5 by 5½ inch cylinders, and is placed transversely of the chassis. In a general way, the arrangement of the engine mechanism is conventional, the valves being located side by side on top and actuated from a single cam shaft which occupies the upper section of the crank case. One unusual point in its construction, however, is the mounting of the valve lifter guides independently of the crank case cover; this permits the engine to be run for inspection purposes with the cranks and valve mechanism exposed.

Lubrication is carried out by the most approved means. A sump is provided in the bottom of the case into which all surplus oil drains. From this reservoir a multi-feed pump lifts the lubricant to supply directly the pistons and main journal bearings. The wrist pins are oiled by a flow induced by the movement of the piston, which carries the surplus from the cylinder walls around a recess in the pistons, through the interior of the pins, and so back to the crank case. The big ends of the connecting rods are oiled by a stream

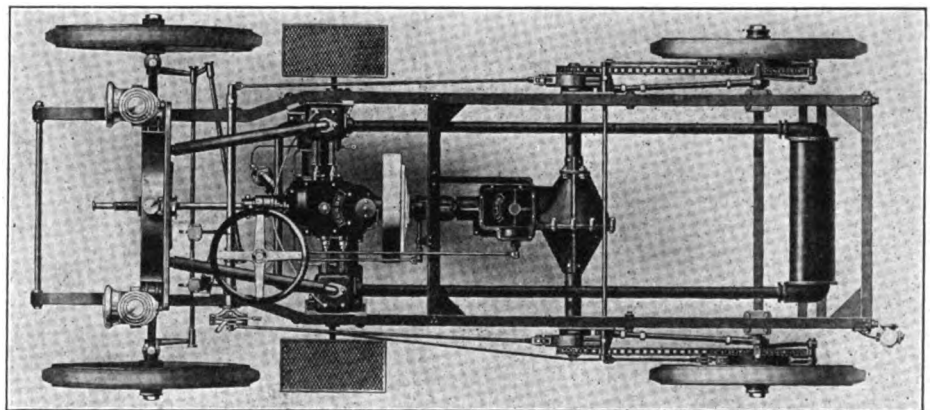


THE CLARK POWER WAGON WITH EXPRESS BODY

traordinarily perplexing. With the idea of producing a design both trustworthy and original, the Clark Power Wagon Co., of Lansing, Mich., after making a special study of the subject, has developed a machine of many good points, which is rated at 1,500 pounds capacity and which, therefore, is suited for either heavy delivery or light trucking purposes. The Clark power wagon, as it is called, is marketed by the Radle-Clark Sales Co., of Detroit, which has just announced the details of its construction.

In working out the design careful thought has been given to developing in it what may be termed the four cardinal points of commercial car structure, namely, strength, simplicity, freedom of action and ease of control. The result embodies a number of rather striking features, as, for example, in the sturdy running gear, the simplified oiling system, the special provisions against the dragging of the brakes and the adoption of set spark ignition and automatic interconnection between the brakes and clutch.

As it is intended for handling either full capacity loads in small bulk or large and light loads, the chassis is designed for conversion in the matter of body equipment and tires. The seat and dash are made integral with the chassis, but either of several types of stock body may be fitted



CHASSIS VIEW OF THE CLARK POWER WAGON

all joints are hot riveted. Semi-elliptical springs are used in front and three-quarter platform members in the rear. The front members of the suspension are 38 inches long, the side members of the rear group are 42 inches in length, while the rear cross member is 37 inches long. All springs are 2 inches wide.

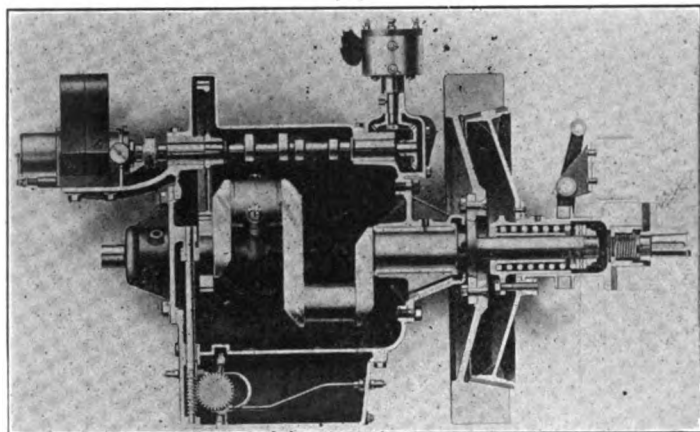
The axles are 1¼ by 2¼ inches, rectangular section. The steering gear is of the Ross type, with special provision made in the connections for the renewal of small sections when wear occurs. The wheels are mounted on taper roller bearings. Two sets of brakes are used, one on the trans-

which is forced through a duct in the crank shaft. A special point to be noted in this connection is that the oiler is non-adjustable. This provision is made for the sake of simplifying the driver's work and at the same time ensuring an adequate supply of oil to all important parts independent of the skill of the attendant.

A special form of double ignition is provided, the intention being to accomplish all ordinary running on the magneto, leaving the battery side of the system for use in starting only. To this end the battery equipment is made unusually liberal, 15 cells being used, connected in three series.



The battery box is hermetically sealed, and when used only for starting, the experiment is guaranteed to last for one year without renewal. A single unit coil is employed, and the time-distributor is mounted above the rear end of the crank case and driven by bevel gears from the cam shaft. The U & H magneto, which is used for ordinary running purposes, is mounted on a bracket which extends forward of the crank case and in line with the crank shaft.



CLARK MOTOR AND CLUTCH CONSTRUCTION

It is permanently set for normal advance and is fixed. Thermo-syphon circulation is used in the cooling system, all hose being of the oil-proof, wire insert type.

Transmission is carried out through a cone clutch fitted with cork inserts, and a selective sliding gearset. The latter is mounted in a unit housing with the counter shaft, the final drive being by means of double side chain. The gears, it is explained, are made of such massive proportions that it is practically impossible to strip them through careless handling. At the same time it also is explained that the sliding pinion type of change gear was chosen in preference to the planetary type, which is so common on machines of the same general class, for the reason that it leaves the engine absolutely free when the car is at rest, which, in turn, permits the engine to be throttled down to extremely low speed.

But two forward speeds are provided by the gears, the maximum, which is obtained by a direct through drive arrangement, being designed for a car speed of about 15 miles an hour. The gear ratio on direct drive is 9 to 1, and on the low speed, 18 to 1. The gearsets and counter shaft are mounted on F & S annular ball bearings. In connection with the final drive to the wheels, provision is made for readily altering the gear by interchanging the front sprockets, which are held in place on their bosses by means of six bolts.

The control mechanism has provision for releasing the clutch whenever either brake is applied. As in the standard type of pleasure vehicle, the clutch and service brake are actuated by pedal, while the

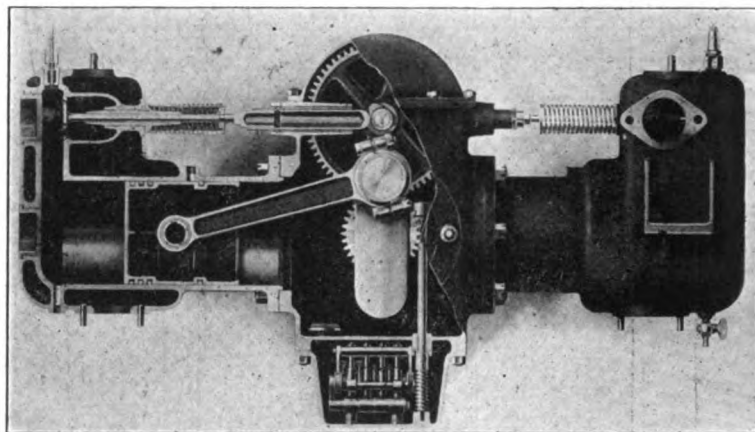
emergency brake and change gear operations are obtained by means of levers. For regulating the speed of the motor a throttle lever is mounted under the steering wheel.

#### Lubrication Proportional to Power.

Foreign automobile engineers are discussing the question of regulating engine lubrication from the unfamiliar point of view that the quantity of oil supplied should be proportional to power production as

brought into question by the present discussion which is being aired abroad.

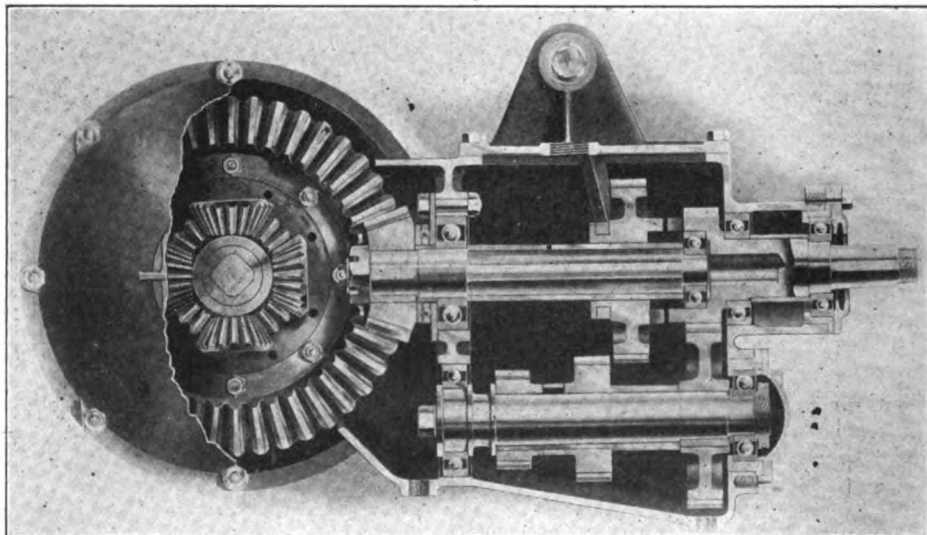
The real question is as to the relative quantity of oil which is absorbed by combustion within the cylinders. Considerable amounts of oil are known to be burned along with the gas, and it is reasonable to suppose that the quantity of oil so consumed is affected in some measure by the heat within the cylinders and also by the amount of gas burned. Hence, it is ar-



VIEW SHOWING CYLINDER AND OILER DESIGN

well as to speed. In other words, in lubrication, as in carburation, recognition is being given to the circumstance that hill climbing service throws upon the motor very severe requirements for which regu-

gued, when the engine is laboring under full load and at a slow speed, the temperature within the cylinders being very high, as great a quantity of oil may be required per stroke as is used when the engine is



CLARK CHANGE GEAR AND DIFFERENTIAL UNIT

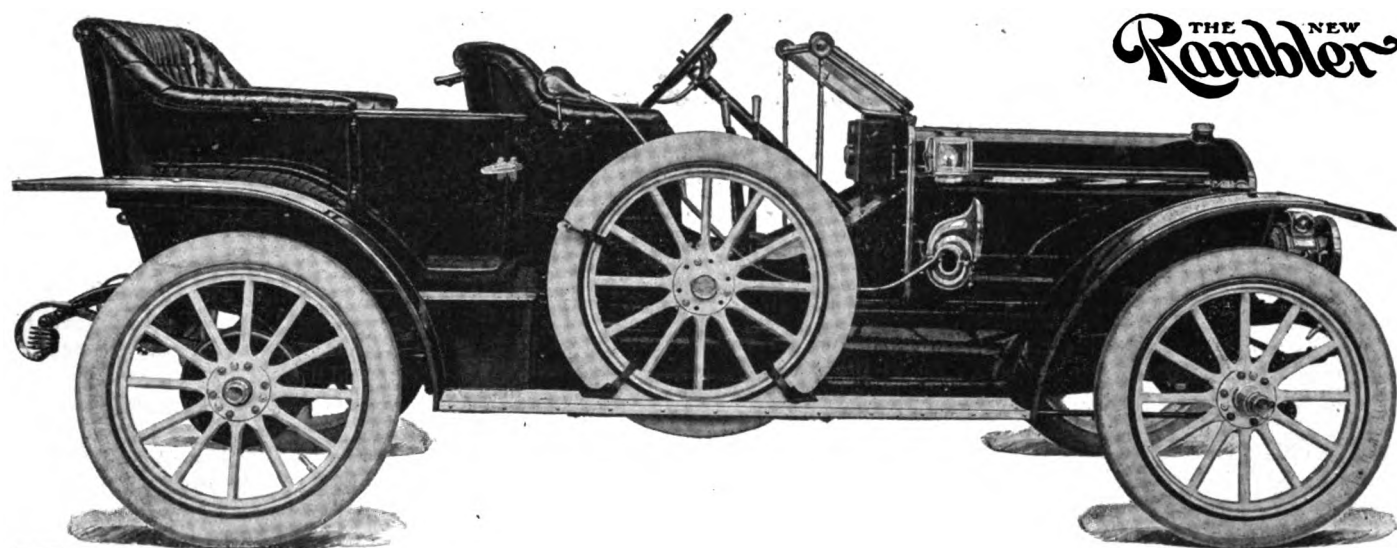
lation on the speed basis alone makes no provision.

Ordinarily adjustment of the oil supply is made proportional to speed on the theory that the faster the engine runs, the greater the quantity of oil which will be wiped off the cylinder walls by the pistons and the greater the supply needed for this purpose and also to maintain the necessary film between the bearings and journals of the revolving bearings. This theory is perfectly tenable, it would seem; nor is it directly

running at high speed with a light load.

On this hypothesis Commandant Krebs, of the Panhard company, in 1907 patented an arrangement whereby an interconnection with the throttle provided an increase of the supply of oil to the base in proportion to throttle opening and entirely independent of the speed; the speed factor, however, was taken care of by the splash system. Recently the Mercedes company, in Germany, and the Rolls-Royce company, in England, have adopted the same principle.





**T**HE Fifty-four Toy Tonneau is a mid-season New Rambler model. It is an evolution from the Close Coupled model, designed for the same demand, but a little more roomy.

Its advantages are low seats, two inches longer than usual from front to back. Seat cushions tilted and rakish seat-back to correspond. Body smaller and lighter than the touring car but tonneau roomy enough for three people of average size. Three inches more leg room in front than touring car. Rakish steering column.

With five lamps, Prest-o-Lite tank or generator, magneto and storage battery, horn and tools, \$2,250. Top with side curtains, \$100. Wind Shield \$40. Spare Wheel \$85.

**Thomas B. Jeffery & Company**

Main Office and Factory: Kenosha, Wisconsin

Branches: Chicago, Milwaukee, Boston, Cleveland, San Francisco

**Youthful Driver is Heavily Fined.**

Charged with assault in the third degree, 18-year-old Elihu Shedlinsky was fined \$100 on Tuesday, the 2d inst., in Special Sessions, Jamaica, L. I., for having run down a girl while he was driving his father's automobile. To avoid crashing into the gates at a crossing on Atlantic avenue, he swerved to the left and struck Miss Rose Bremen, who was standing near the gate waiting for the gates to be opened. The judge, in sentencing Shedlinsky, reprimanded the youth severely and added: "If your father were before me in connection with this case, I should vote to send him to the penitentiary for turning over a powerful engine to a boy 16½ years of age, which you say was your age when first you commenced driving your father's car. A man like that hasn't proper regard for the rights and lives of other people."

**Brooklyn Dealers' Reliability Plans.**

Secret timing stations form the remedy which the Brooklyn (N. Y.) Motor Vehicle Dealers' Association has adopted to prevent speeding between controls and to definitely evolve a winner in each class in its reliability contest on Long Island on the 9th and 10th inst. There will be two divisions, a contest division and a tourists division, the former being sub-divided into three classes according to price as follows: 1A, \$800 and under; 2A, \$801-\$1,200; 3A, \$1,201-\$1,600. There will be a trophy for

each of the above classes, and in addition two additional trophies, one for touring cars and the other for runabouts to be contested for collectively by the entrants in classes 4A, 5A, 6A and 7A. While doubts are expressed as to the efficacy of the plan, the contest committee figure that drivers will not imperil their scores by speeding and "getting in bad" with the timers in the bushes. The class winners will be determined by most consistent running and closest adherence to the official schedule. While the participants in the contest division will be compelled to live up to the A. A. A. rules, the members of the tourists' party can do practically as they please as long as they cover the entire route.

**Carbon Clogging in Exhaust Horns.**

Motorists who experience considerable difficulty from the obstruction of exhaust horns with carbon deposit well may consider whether the difficulty does not lie entirely with the motor rather than with the signaling device. Over-lubrication as a constant practice naturally may be expected to have the same effect upon the horn parts as it does upon the cylinder interior and valves. Therefore a horn valve which sticks occasionally, even though it be of the so-called self-cleaning type, or a horn which sometimes evidences a tendency to blow continuously for long periods need not necessarily be condemned.

**Make Cowardly Escape After Accident.**

One of the occasional accidents which serve to show up the despicable character of some automobile drivers happened on Sunday, a week ago, at White Plains, N. Y., and as a result a 50-year-old man lies seriously injured in the Bloomingdale asylum. The car traveled at high speed and hurled the man, James Dolan, into the bushes beside the road. The automobile was stopped a short distance from the scene of the accident, two men came back to investigate, and, finding Dolan alive, dragged him far into the grass under the shade of a big tree, and then sped on, making no report of the accident. Dolan remained in a semi-conscious condition for fourteen hours under the tree, until a passer-by discovered him. The whole township is embittered against the guilty motorists and their wrath is apt to find some innocent victim if the real culprits are not discovered.

**Picked Wrong Man for Comments.**

Because he did not exercise sound judgment while driving a new machine, W. F. Swavely, of Reading, Pa., a tester for the Reading Automobile Co., was fined \$10 a few days ago. Swavely drove his car past a stopping trolley car and came near knocking down one of the passengers alighting from the latter. He made a few rather terse remarks, and discovered to his dismay that the passenger he was berating was Judge Henry K. Ward.



Scores of Announcements and Advertisements of 1911 Models call attention to the fact that cars they advertise are equipped with

**Bosch Magneto Ignition**

Experience has taught these manufacturers that it is good salesmanship and profitable advertising.

**BOSCH MAGNETO COMPANY**

223-225 West 46th Street, New York

Chicago Branch  
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# You Can Always Depend On Reliance Spark Plugs

The power of your engine depends on receiving a quick, condensed spark of intense heat for every charge of gas.

Buying cheap spark plugs means that you are almost certainly reducing the efficiency of your engine.

The Reliance delivers a concentrated, hot spark, *every time*, regardless of any accumulation of soot, carbon, etc., which will put cheaper spark plugs out of business. You can always depend on it.

Here is a test that will show you that the Reliance cannot be short-circuited like the ordinary spark plug. Put both plugs in a glass of water, turn the current on, and the Reliance will spark right along. No other plug will do the same.

The Reliance needs no attention. Its action does not depend on valves or moving parts, but is entirely electrical in action.

There is no combination we have yet found in any kind of gas engine cylinder that will make the Reliance lay down and quit.

Isn't that the kind of spark plug you want in your engine?



Ask your dealer for the Reliance. If he hasn't it, don't run risks of trouble by accepting a cheaper substitute, but write to us. We will fill all orders promptly, prepaid, on receipt of price.

Our booklet on spark plugs makes interesting reading for every owner of an automobile or motor boat. Send for a copy—to-day, while you think of it—and get one of our astonishing electrical novelties free.

**Magneto  
Type,  
\$1.25**

## Jeffery-Dewitt Co.

**Manufacturers of  
Reliable Spark Plugs**

**52 Butler Ave.      Detroit, Mich.**

## RECENT PATENTS.

962,110. Internal Combustion Engine. George John Altham, Fall River, Mass. Filed March 28, 1907. Serial No. 364,980.

1. In a two-cycle internal combustion engine, the combination with a cylinder having an air inlet port for the admission of air and a separate inlet port for an explosive charge situated below the air inlet port, of a piston in the cylinder which by its movement opens said ports simultaneously to admit both air and an explosive charge to the cylinder below the piston, said cylinder having another port and the piston also having a port which registers with said other port when the piston is at the end of its power stroke whereby first air and then the explosive charge are transferred to the working end of the cylinder.

962,140. Carburetter. Charles E. Hall and William Dicks, Buffalo, N. Y., assignors to Charles E. Hall Company, Buffalo, N. Y. Filed Oct. 18, 1907. Serial No. 398,067.

1. In a carburetter, the combination of a casing having an air passage, a spray pipe arranged transversely in said passage and having a plurality of discharge orifices in one side thereof, a throttle valve comprising inner and outer shells arranged transversely in said passage to turn on an axis parallel with said spray pipe and having holes in the sides thereof adjacent to said nozzle, and means for turning said shells in opposite directions to increase and decrease the area of the opening provided by said holes, whereby the discharge orifices of said pipe are covered and uncovered successively and said opening is kept concentric with respect to said pipe, substantially as set forth.

962,159. Valve Controlling Mechanism for Internal Combustion Engines. Frank J. Miller, Cleveland, Ohio. Filed Oct. 4, 1909. Serial No. 520,787.

1. In an internal combustion engine, a valve gear including in combination, a bearing pin having a hole therethrough, the said hole diverging from the middle to its ends, a support for said pin, a rocker fulcrumed on said pin and operatively connected to the valve, a pin rigid with the rocker and extending through the said hole, and means to operate the rocker.

962,220. Number Plate Support for Vehicles. William B. Hughes, Cleveland, O. Filed June 19, 1909. Serial No. 503,066.

1. A device of the character set forth comprising a base having a vertical socket, said socket being provided with an elongated slot and with a transverse enlargement of said slot, a set screw carried by the socket and adapted to be adjusted thereacross at said enlargement, a lamp supporting member carried by said base, and a number plate supporting member also carried by said base.

962,221. Number Plate Support for Vehicles. William B. Hughes, Cleveland, O. Filed July 10, 1909. Serial No. 506,885.

1. A device of the character set forth comprising a base having at one end thereof a vertically extending socket and a horizontal socket above the first-mentioned socket and having at its opposite end a lamp supporting post having a face inclined with respect to the axis of the horizontal socket.

962,233. Air Cooled Engine. William J. Miller, Springfield, O., assignor, by mesne

assignments, to The Kelly Motor Truck Company, Springfield, O., a Corporation of Ohio. Filed May 11, 1908. Serial No. 43,142.

1. In a two-cycle engine, a cylinder, an exhaust port, a supply port or passage, an air jacket for said cylinder forming an air passage about the same, and means for forcing a current of air through said air passage, said exhaust port being located intermediate the air outlet from said jacket and said supply port or passage and in proximity to the latter, as and for the purpose specified.

962,247. Connection for Vehicle Wheels. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Oct. 19, 1905. Serial No. 283,475.

1. The combination with a hollow driving axle, and a wheel, of a two-part socket member each element of which has a stem received in said axle and has also a head provided with a socket, a two-part connector each of whose elements has a socket and also a trunnion portion received in the said sockets of said socket member, and a second connector in driving connection with said wheel and having trunnions received in said sockets of said two-part connector; substantially as described.

962,248. Mechanism for Feeding Fuel. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Oct. 19, 1905. Serial No. 283,476.

1. The combination with a plurality of engine cylinders and a charge supply, of a controller connected with the supply and provided with a plurality of ports, a pump, separate connections leading from the ports to the pump, means in the controller for successively covering and uncovering the ports to successively cut off the supply from communication with the pump, and means separately connecting the pump with each of the engine cylinders.

962,249. Cooling Means for Motors. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Jan. 11, 1906. Serial No. 295,639.

1. The combination with a cylinder having an exhaust port, a piston, and an inlet port, of a valve closing said inlet port and adapted to be opened by pressure upon its outer side, a casing about said cylinder and provided with inlet and outlet ports, a pump including a reciprocatory piston, connection between said outlet port of said casing and both sides of said pump piston, inwardly opening check valves in said connection, connection between said pump and said outer side of said inlet valve to said cylinder, and an outwardly opening check valve in said latter mentioned connection; substantially as described.

962,250. Cooling Means for Motors. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 5, 1906. Serial No. 299,611.

The combination with a motor cylinder, of a casing surrounding the same, a check

valve for normally closing a port in the casing, said check valve having a tubular stem, a check valve for closing an opening in the cylinder, and having a stem slidable within the tubular stem of the casing valve and means for drawing air into the casing and then introducing it into the cylinder.

962,251. Pump. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 5, 1906. Serial No. 299,612.

1. The combination with a pump cylinder, of a partition therein having inlet and outlet ports, and a rocking valve within the pump cylinder and actuated by the pump piston.

962,252. Equalizing Device. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 23, 1906. Serial No. 302,527.

1. A gearing including a drive member, a plural number of driven members, a clutch member rigid on each of said driven members, movable clutch members on said drive member for automatically engaging the said rigid clutch members during the rotation of the drive member in either a forward or a rearward direction, and means for preventing movement of the said movable clutch members; substantially as described.

962,253. Controller. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 12, 1906. Serial No. 305,664.

driven part, a motor therefor, and cmfwp

1. The combination with a driven part, a motor therefor, and a brake for said driven part, of a source of charge supply for said motor, a generator of charge-exploding energy for said motor, means for operating said generator to render the same active and inactive, means for operating said brake to render the same active and inactive, and a controller provided with means for controlling the supply of charge to said motor, with means for controlling the operating means for said brake and with means for controlling the operating means for said generator; substantially as described.

962,254. Motor. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 12, 1906. Serial No. 305,664.

1. The combination with an engine cylinder, a gas mixture supply mechanism therefor and means for controlling the operation of said mechanism, of an air pressure reservoir, air admitting and exhausting devices being a check valve, and means for controlling the operation of said devices whereby the check valve may become the admitting device.

962,255. Sparking Apparatus. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 12, 1906. Serial No. 305,665.

1. In a sparking apparatus, an electrode, a piston movable toward and away from the same, said piston being rotatably mounted and shifting about its center of



rotation as it moves toward and away from said electrode, and a sparking ring removably mounted upon said piston and constituting the co-operating electrode; substantially as rescribed.

962,256. Vehicle Body Support. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 19, 1906. Serial No. 306,836.

1. The combination with a vehicle running gear, of rocking elements carried by the running gear, torsional springs coiled about the rocking elements and having movements independent of the movements of the rocking elements, one part of each

torsional spring being fixed to a rocking element, and a body frame spaced from the rocking elements and connected to the torsional springs.

962,257. Steering Device. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed May 3, 1906. Serial No. 315,079.

A motor for steering mechanism, comprising a receptacle having fluid pressure supply and exhaust ports, valves in the respective ports and arranged for co-operative movement, means for unseating one valve when the other is seated, and a stem on one of the valves for supporting the other valve.

# KLINE KAR

## New Series Model 6-40 Now Ready EVERY LIVE DEALER

owes it to himself to examine the KLINE-KAR and understand what it really is and what it represents.

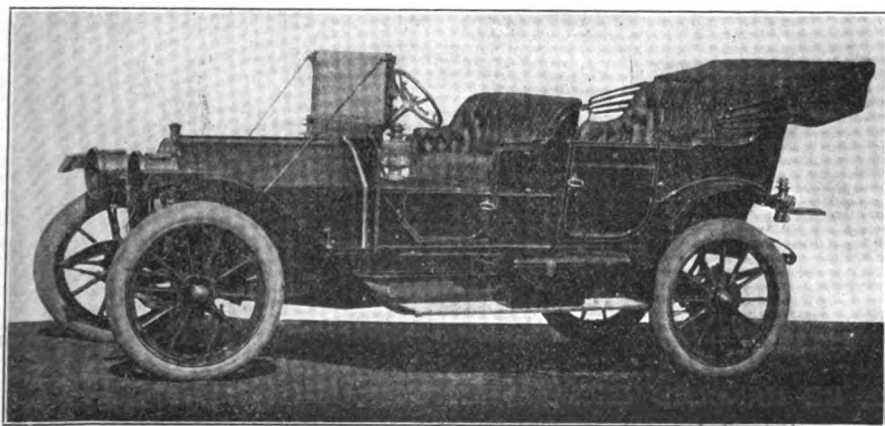
It is offered as the last word in present day automobile construction.

Avoiding extremes, the KLINE-KAR represents the ideal of the average buyer. At its price—\$2500—there is nothing that compares with it.

At any price the KLINE-KAR acknowledges no superior.

The man who knows most about motor cars best appreciates the KLINE-KAR.

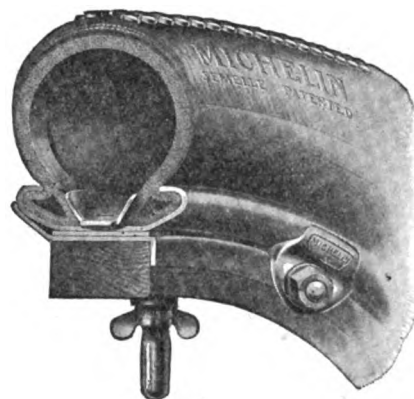
GET IN YOUR ORDERS FOR EARLY FALL BUSINESS



New Models, Optional With or Without Front Doors

**B C K MOTOR CAR CO., York, Pa.**

## Michelin DEMOUNTABLE RIM



*The Original Type*

**Simplest  
in Construction  
Lightest in Weight  
Easiest to Operate  
Absolutely Secure  
No Lugs  
nor Security Bolts**

**MICHELIN TIRE CO.  
Milltown, New Jersey**



962,258. Vehicle, Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed March 30, 1906. Serial No. 308,891. Renewed Jan. 4, 1909. Serial No. 470,598.

1. The combination with a base frame and a body frame, of rockable elements carried by the base frame, spring arms carried by said rockable elements and connected to the body frame, wheels carried by the base frame, rigid members carried by the rockable elements and connected to the wheels, and means for rocking said rockable elements.

962,259. Support for Vehicle Bodies. Albert F. Rockwell, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Feb. 23, 1906. Serial No. 302,526. Renewed Feb. 8, 1909. Serial No. 476,820.

1. In a vehicle, the combination with a running gear, a body frame, and a body, of rock shafts upon said running gear and provided with rock arms, brackets upon said body frame and connected to said rock arms, and springs supported upon said brackets and supporting said body; substantially as described.

962,272. Auto Sleigh. Oscar John Tubbs, Waterville, Me. Filed Aug. 30, 1909. Serial No. 515,225.

1. In an auto sleigh, the combination with a frame, of a shaft rotatably supported on said frame, a pair of hangers pivotally supported on said shaft, propelling wheels

on said hangers, a cross rod loosely connecting said hangers, a lever engaging said cross rod adapted to force said propelling wheels into engagement with the roadway, and means for operating said lever.

962,314. Jump Spark Igniter Plug. Louis Bond Cherry, Aberdeen, S. D., assignor by direct and mesne assignments, to The Ball Multi-Spark Plug Co., Aberdeen, S. D., a Corporation of South Dakota. Filed July 29, 1907. Serial No. 385,992.

1. An igniting device having opposing curved smooth electric condenser surface electrodes arranged one within the other and separated by an annular spark gap.

962,371. Feeding Means for Explosion Motors. Woodford R. MacGuyer, Waterbury, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed July 29, 1907. Serial No. 385,992.

In a motor, the combination with plurality of cylinders, and a source of fuel supply, each said cylinder being provided with a fuel inlet, of a feed conduit having said inlets opening thereinto at points between the ends of the conduit, and communication between said source of supply and each end of said conduit; substantially as described.

962,406. Wind Shield. Edward S. Adams, Columbus, Ohio. Filed June 7, 1909. Serial No. 500,668.

A shield for automobiles comprising a fixed lower section and an upper section, a pair of interengaging hinge plates upon the front face of the shield at each side there-

of, a pair of interengaging hinge plates upon each side of the shield at the rear face thereof, removable pintles for connecting said hinge plates, and means for preventing the complete withdrawal of said pintles from said hinge plates, said means comprising spring tongues adapted to enter reduced portions of said pintles.

962,437. Gas Engine. Frederic O. Kilgore, Minneapolis, Minn. Filed April 7, 1906. Serial No. 310,437.

1. In an apparatus of the class described, in combination, an internal combustion engine having a plurality of cylinders, a casing inclosing said cylinders, and provided with a plurality of openings substantially in line with said cylinders, an air jacket for each of said cylinders and communicating with the atmosphere through the opening in the casing in line with the cylinder with which said air jacket co-operates, said air jacket communicating with said casing, and a fan to draw air from the casing and cause cool air to be simultaneously drawn through the air jackets to first make contact with the hottest part of the cylinder, substantially as described.

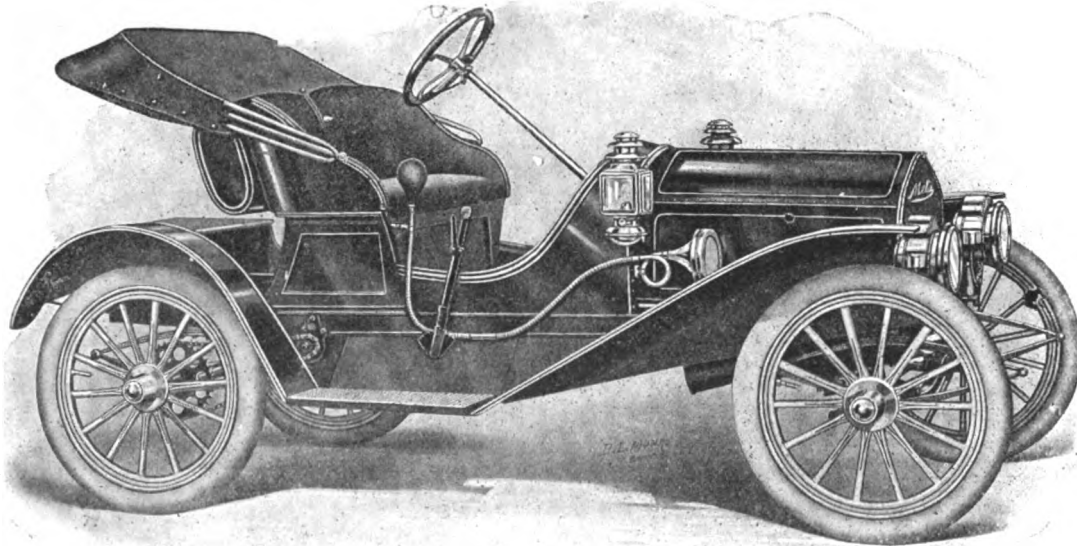
962,557. Vehicle Spring. William E. Eastman, Boston, Mass. Filed Feb. 1, 1909. Serial No. 475,500.

1. The combination of a spiral and compensating member or extension adapted to support a carriage body elastically, said spiral upheld by the vehicle and said member upheld by the axle and anchored by movable joints, said extension adapted as a lever to compensate the tension of the spiral, means to adjust said spiral to the weight imposed and means to restrict the movement of the axle.

## THE 1911 METZ RUNABOUT Assembled, trimmed and painted, with complete equipment as shown **\$485**

### SPECIFICATIONS.

Motor: 12 H. P.; 3.5 x 3.3 two cylinders, opposed, offset. Timing gears enclosed. Fan in fly wheel. Ignition: Bosch magneto; high tension; jump spark. Oiling System: Constant level splash system, operated by automatic pump. Carburettor: Schebler automatic. Transmission: Friction drive. Any speed forward and reverse. Frame: Pressed steel channel section. Axles: Tubular. Ball bearings front and rear. Wheels: Interchangeable artillery wheels, detachable at hub. Tires: Clincher 28 x 3. Steering: Hand wheel; geared reduction; no backlash. Brakes: Multiple disc in rear hubs; friction disc on reverse. Control: Throttle adjusting lever on steering column; foot pedal disc release. Suspension: Full elliptic springs front and rear. Body: Wood with metal panels; double bucket seat neatly upholstered in genuine leather. Military tank attached. Equipment: Top and slip cover, Bosch magneto, gas lamps and generator, three oil lamps, horn and set of tools. Wheel Base: 81 in.; tread, 48 in. or standard. Construction of a type that either tread can be obtained by simply reversing wheels. Weight: 750 pounds. Two to 40 miles per hour; will climb any reasonable grade. Gasoline capacity over 200 miles. Finish: Metz gray; black striping.



**OUR ENTIRE OUTPUT WILL BE HANDLED EXCLUSIVELY THROUGH DEALERS**

Applications for agency will be considered in rotation in which they are received. Wire your application for territory and follow with letter giving particulars regarding your facilities for handling agency and number of cars you expect to sell each month of our fiscal year beginning August 1.

**METZ COMPANY, Waltham, Mass.**

# AJAX TIRES

TAKE yearly calendars for the past five years and out of the 1826 days mark off 200 days nine times. Those nine periods will represent but nine purchases of AJAX TIRES.

IN other words, had you bought AJAX TIRES for your car five years ago and continued to buy them, no matter how long or how short a time they lasted, you would not have had to pay for more than nine sets of tires in all that time. You would have been guaranteed at least 5000 miles or 200 days of service from each tire purchased from us.

*Will any other tire builder issue you the same specific guarantee? Can you be as certain of the same wear from any other make of tire?*

## AJAX-GRIEB RUBBER CO.

1777 Broadway, New York  
Factories: Trenton, N. J.

### BRANCHES IN

Boston, Philadelphia, Atlanta, Detroit, Chicago, Kansas City, Denver, Seattle, Portland, San Francisco, Los Angeles, Milwaukee, St. Louis.

## "Made by Trunkmakers who are Motorists"



**The KAMLEE**  
is the only real auto trunk

It is built to meet all the requirements of the touring motorist—and it is the only one that does. Every practical idea of serviceability, convenience and appearance is featured in the Kamlee Trunk. It

**Rain Proof**

**Dust Proof**

**Conforms to the Shape of Any Car**  
no matter what the make or type may be—special designs being made to fit cars with cut in backs. It has a patent drop front which enables you to remove articles from the bottom without disturbing the contents at the top.

**Send for Leaflet**  
giving complete information of its perfect construction—and prices.

*The Kamlee Trunk is fully protected by Patents, and all infringements will be prosecuted.*

**THE KAMLEE CO.**  
345 Milwaukee Street  
Milwaukee, Wis.



## Please Do Not Confuse Auburn Ignition Spark Plugs

with similarly named, poorly constructed imitations. When you buy Spark Plugs please see that the words

### "THE AUBURN IGNITION PLUG"

are stamped on the metal of the hexagonal nut, also on the porcelain. These words guarantee the plug fully, and assure you that you are receiving the original and genuine Auburn Ignition Plugs—plugs made in the largest factory devoted exclusively to plug making in the country.

The use of a similar name on a cheap and inferior product has forced us to give this notice to motorists, and to the trade in general:

**AUBURN IGNITION SPARK PLUGS**—both mica and porcelain—are as superior a product as can be produced from the finest materials by the most up-to-date methods known to the manufacturing world.

Our reputation was made on them—our guarantee is back of them.

Remember, please, that The Auburn Ignition Mfg. Co. is in no way connected with any other company previously in Auburn, N. Y., or now doing business in Auburn, N. Y.

Price \$1.00

Made in all sizes. Mica and Porcelain interchangeable.

**THE AUBURN IGNITION MFG. COMPANY**  
Dept. J, Auburn, N. Y.

# WETHERILL FINISHED CASTINGS

Die cast from Parson's white brass make the finest kind of engine bearings.

Absolutely accurate and every one interchangeable.

We are now making 25,000 bearings per day, and increasing output as rapidly as possible. A case where quality is recognized and put to use.

**WETHERILL FINISHED  
CASTINGS COMPANY**  
PHILADELPHIA, P. A.

**THE MARMON***"The Easiest Riding Car in The World"*Closed Front  
Touring Car, \$2,750

Has won practically all the important long-distance racing events of America.

**NORDYKE & MARMON CO., Indianapolis, Ind.***(Estab. 1851)*

Licensed under Selden patent.

**DIAMOND CHAINS**

are and have been the recognized quality standard for 20 years. Strong, accurate and durable. Let us cut your sprockets.

**DIAMOND CHAIN & MFG. CO.**

150 W. Georgia St.

Indianapolis, Ind.

Capacity 8,000,000 feet per year.

**TO DEALERS**

We have a most attractive proposition for progressive dealers in unoccupied territory. Our big campaign of advertising in the national publications has made American motorists thoroughly familiar with the OWEN and is creating an army of prospective buyers. Write TO-DAY.

**Owen Motor Car Co., 1620 E. Grand Blvd., Detroit, Mich.***Woodworth*

**WOODWORTH TREADS** are the only true tire protectors. They never chafe or heat the tires. They are held in place by coil springs along the sides, which automatically take up all slack and prevent any looseness. The protector is always tight and smooth.

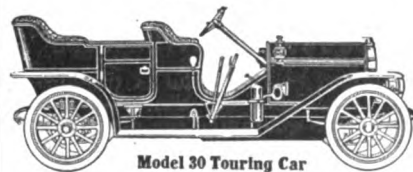
No other protector can be fitted in the way that these automatically fit themselves.

They fit all makes of tires—anyone can easily put them on. *Send for Catalogue.*

Leather Tire Goods Co., Niagara Falls, N. Y.  
*Canadian trade supplied from Niagara Falls, Ont.*



The only car of established reputation  
selling at a moderate price.

**HAYNES****\$2000**Station C, KOKOMO, IND.  
Licensed under Selden Patent.The  
\$1750**Inter State "40"**

Model 30 Touring Car

Speedy, Graceful, Easy-Running, Reliable.

Of all the good ones  
**THE INTER-STATE**  
is the best in its class.

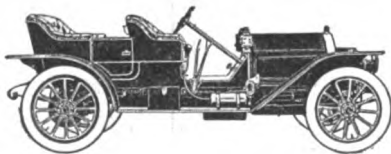
Refinement of Design, Superior Workmanship and Able Organization Make this Possible.

(29)

*Our proposition is interesting to all dealers.  
Compare our specifications with any high-priced car.*

**INTER-STATE AUTOMOBILE COMPANY, Muncie, Ind.**

Licensed under Selden patent.

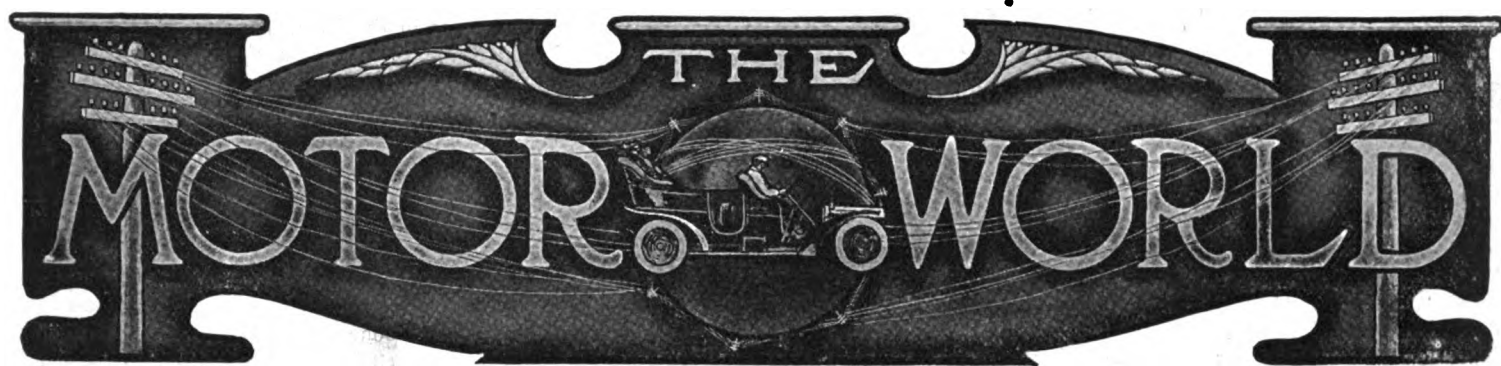
*National* 40—\$2500**The Car That Is Never Found Wanting**Bigger, Faster, More Powerful, More Luxurious  
Than Any Car Near Its Cost.**National Motor Vehicle Co.**

1007 E. 22d Street Licensed under Selden Patent Indianapolis, Ind.

**Accurate Gears**

**CAN** furnish all kinds of gears of any material and in any quantity, all with accurately cut or planed teeth.

**LET US QUOTE YOU PRICES****The New Process Raw Hide Co.**  
**SYRACUSE, N. Y.**



## DECREE AGAINST FORD IS FILED

**Injunction Against Infringing Selden Patent Unless Defendants Appeal—Bond Fixed at \$350,000.**

After many delays the famous "Ford decree" at last has been entered in the Selden patent case, which was decided last fall. By its terms the Ford Motor Co. is held as infringing the Selden patent and is enjoined from manufacturing cars, although Judge Charles M. Hough simultaneously has filed a memorandum opinion which provides for a suspension of the injunction pending an appeal. If an appeal be taken, an order for the suspension of the injunction will be entered only if the Ford company files a bond which the court says shall be in the sum of \$350,000, and further conditions provide that the defendants will be required to file with the court sworn monthly statements of the amount of their business.

With the Ford decree, Judge Hough has filed a similar decree in the test suits against Panhard & Levassor, with a like provision that an order suspending injunction may be entered if appeal be taken, but a bond of \$16,000 must be filed, together with the monthly statements. In the three other cases, against John Wanamaker, O. J. Gude & Co. and against Henry and Aulbert C. Neubauer, importers, there is no provision in the decrees for the suspension of the injunction.

Much of the delay in the filing of the decrees has been due to the necessity of fighting out the question as to whether the name of the Columbia Motor Car Co., of Hartford, Conn., properly could be substituted for that of the Electric Vehicle Co., which it succeeded and which as the owner of the Selden patent was the complainant with George B. Selden against the defendants. The resistance offered by the latter to the change resulted in a complicated tangle of procedure which it has

taken almost a year to get through. The Ford company long ago expressed its intention of carrying the litigation up to the court of appeals.

### Croxton-Keeton is in Bankruptcy.

Although a creditors' committee was formed for the purpose of assisting the Croxton-Keeton Motor Co., of Massillon, Ohio, in straightening its affairs, the company nevertheless has been petitioned into bankruptcy by four creditors, J. L. McLain, of Canton, Ohio, being appointed as receiver by the federal court at Cleveland. H. A. Croxton, president of the company, declares that the receivership will be of short duration, that all creditors will receive 100 cents on the dollar with 6 per cent. interest for delays, and that the concern will be reorganized on "sane, safe lines." The petitioning creditors are the United Manufacturers, \$990; Continental Caoutchouc Co., \$1,690; Stark Rolling Mills Co., \$461; Canton Brass & Machine Co., \$500.

### Reorganization Planned for Royal.

Negotiations are in progress looking to a partial reorganization of the Royal Tourist Car Co., of Cleveland, O., by which the company will enjoy a considerable increase of available capital and will commence the manufacture of models at from \$1,500 to \$2,000, in addition to the present type of large touring car. Several parts and materials men are indicated as being parties to the deal, which when consummated would result in a substantial strengthening and expansion of the company's production and selling organization.

### Rajah Sues a Cut-Price League.

Infringement suit for \$10,000 damages has been brought by the Rajah Auto-Supply Co., of Bloomfield, N. J., against the fragrant International Automobile League of Buffalo, N. Y. It is alleged that the cut-price league has been selling plugs and ignition equipment bearing the "Rajah" trade-mark but which did not emanate from the Rajah factory.

## RECOVERING FROM THEIR SCARE

**Bennett Finds Western Farmers and Agents Prosperous—Haines Also Sees a Bright Outlook.**

Returning from a direct personal investigation of trade conditions in that large general section of the country which lies between the Mississippi river and the Rockies, George W. Bennett, in his capacity as general sales manager of the Willys-Overland Co., of Toledo, O., declares that a marked improvement is observable in the districts where prosperity has an agricultural basis and announces the discovery of a unique scheme on the part of country bankers to "save their faces" in abandoning their attempts to stem the tide of automobile buying. His observations were made at first hand on a trip which took him as far west as Denver.

"Some cause for apprehension was created by a lull in the trade that was very apparent in the central and western portions of the country," says Bennett, "but saving rains and favorable conditions have brought about fine crops and everybody concerned is feeling opulent and optimistic. The temporary spell of pessimism is almost completely banished. The farmers have money and are ready to spend it for motor cars or anything else that they want."

Finding that their opposition to automobiles has proved something of a boomerang in creating panic sentiment, the country bankers, according to Bennett, despite their "resolutions" and conventions have found means to accommodate borrowers who want to buy cars now instead of waiting until crops are harvested. While complying with the letter of their "resolutions" not to accept the notes of intending automobile purchasers, they have hit upon the plan of officially endorsing the borrowers' notes, making them wholly acceptable to the automobile manufacturers. The Willys-Overland Co. plans to accept all



such notes with bank officials' endorsements. Bennett asked one farmer what the latter thought of the local bank's reluctance to lend money for automobile buying. The farmer replied that he was going to show what he thought, by not entrusting that bank with any more of his money.

Fred W. Haines, general manager of the Regal Motor Car Co., of Detroit, Mich., also recently completed a tour of investigation, in both the East and the West. Like Bennett, he finds a great recovery from the temporary feeling of depression that prevailed in the western districts.

"The wonderful crops in the West," he says, "have enabled the farmer and the people he comes in contact with to buy automobiles without recourse to the banks, and, as the farmer now looks upon the automobile as a necessity and not with the feeling of antagonism shown in former years, there is no question in my mind but what the fall purchases of machines will be greater than ever before known.

"Whatever scare existed in the trade regarding the market for cars among the farmers was caused by the inclement weather that prevailed during the spring and early summer."

#### United Rim Adopts a Demountable.

Originated and developed by the Continental Caoutchouc Co., of New York, the new Gilbert-Continental rim has been added to the United Rim Co.'s authorized standard types, and will be known as the "standard universal No. 3 type detachable demountable rim." The United Rim Co., as was explained at the time, represents a compromise of rim patents on the part of a group of the big tire makers in order that certain standard types of rim may be developed for universal adoption by automobile makers, as against the confusion of many individual competitive types. On July 1 the companies participating in the movement for standardized rims voluntarily retired from the manufacture of their own individual rims and permitted the United Rim Co., a patent holding corporation, to issue licenses to rim making concerns for the manufacture of two types of standard rim, known as "standard universal" No. 1 and No. 2 types, respectively, being of the quick detachable type. The companies in the movement include the Diamond Rubber Co., Goodyear Tire & Rubber Co., B. F. Goodrich Co., and the Rubber Goods Mfg. Co. group, consisting of the G & J Tire Co., Hartford Rubber Works Co., and Morgan & Wright, together with the Continental Caoutchouc Co., whose factory recently was acquired by the Rubber Goods company. The new rim is the third on the "standard" list, and permits the carrying of extra tires ready-flated on spare rims, allowing the use of clincher, quick detachable or Dunlop tires.

## CHANGES AMONG THE TRADESMEN

### Many Shifts Among Men who are Prominent in the Industry—Resignations, Elections and Appointments.

Montgomery Hallowell has been chosen as general advertising manager of the United States Motor Co., and will have supervision of the publicity and advertising of the \$30,000,000 parent company and of the concerns affiliated with organization, including the Maxwell-Briscoe Motor Co., the Columbia Motor Car Co., the Brush Runabout Co., the Alden Sampson Mfg. Co., the Dayton Motor Car Co., Courier Car Co., Briscoe Mfg. Co., Gray Motor Co. and Providence Engineering Works. Division advertising managers will be maintained at the various plant, who will report directly to the general office in New York. Hallowell for several years was connected with the Chicago Tribune, then became advertising manager of the National Cash Register Co. and later of the E. R. Thomas Motor Co. For the past three years he has been connected with the New York organization of Lord & Thomas advertising agents.

Harold L. Pope, who has been the designer for the Matheson Motor Car Co., of Wilkes-Barre, Pa., and now is serving as a receiver for the company, has been appointed manager of the "west works" of the Pope Mfg. Co., Hartford, Conn., of which latter company his brother, Albert L. Pope, is president. He will assume his new duties as soon as he can be released from participation in Matheson affairs. Previous to going with Matheson he was with Pope-Robinson, International, the Pope Mfg. Co.'s plant at Hagerstown, Pope-Toledo and Willys-Overland, respectively, serving in various capacities relating to designing, engineering, superintendency and plant management.

W. S. Hathaway, who for the past three years has been district sales manager of the Maxwell-Briscoe Motor Co., has been made general supervisor of all branch houses in the Western district of the United States Motor Co. The territory includes branches in Minneapolis, Omaha, Des Moines, St. Louis, Kansas City, Dallas, Los Angeles, San Francisco and Seattle, his jurisdiction covering the entire country west of the Mississippi. He will make a tour of inspection of the branches and establish headquarters in Kansas City.

Ernest H. Brandt, who recently resigned as president and general manager of the Rambler Automobile Co. of New York to join the sales organization of the United States Motor Co., has been made a district manager for the latter, and will have

general sales supervision of the Brush runabout in the East. His territory comprises eighteen states on the Atlantic seaboard, from Florida to Maine.

N. H. Van Sicklen, Sr., has been elected president of the Fal Motor Co., of Chicago, Ill., making the Fal car. He long has been identified with the automobile industry and at one time was the publisher of Motor Age. E. H. Lowe, general manager and secretary of the company, retains those offices. In accordance with the company's general scheme of expansion, the capitalization has been increased from \$200,000 to \$900,000.

T. L. Hausmann, formerly with the New York City sales force of the Chalmers, has been appointed manager of the branch which the E-M-F Co., of Detroit, Mich., is to establish in St. Louis, Mo. The company has leased a large storage building at 4360 Duncan avenue, in northwest St. Louis, and is seeking a salesroom location on 12th street, in the automobile row.

A. G. Williams, formerly associated with C. Arthur Benjamin in Franklin and Aero-car activities, has been given charge of the wholesale and agency business of the Haynes Automobile Co., of New York. He will represent the company in New York, New Jersey and the New England states, in the distribution of Haynes cars.

J. E. Talty, who succeeded Charles F. U. Kelly as sales agent of the Continental Rubber Works, Erie, Pa., has resigned that office to join Kelly in the Kelly-Racine Rubber Co., of Racine, Wis., where the latter company's big new factory is nearing completion. Talty will be identified with the sales end of the business.

Edwin E. Servis has succeeded Jesse Draper as manager of the New York City branch of the Mora Co., of Newark, N. Y. He is not a new man to the Mora interests, as heretofore he has been located at the factory.

John C. Spiers has resigned as superintendent of the Mercer Automobile Co.'s factory at Trenton, N. J. His future plans not yet are announced.

#### Cole to Open in San Francisco.

The Cole Motor Car Co., Indianapolis, Ind., is to open a branch in San Francisco, Cal., for the distribution of Cole "30" cars. F. W. Cole, Jr., will be the manager. Distributing agencies also are maintained in Los Angeles, Portland and Seattle for the Pacific coast trade.

#### Bartholomew Reduces Prices.

The Bartholomew Co., of Peoria, Ill., has announced a reduction in the prices of its models in the future. Heretofore the Glide cars have been listed at \$2,500, but the new models sell for \$2,000, with the exception of the torpedo model, which is \$2,150.



**STOP SLICK SCHEME OF ROBBERY**

**Two New York Firms Find Employees in Collusion with Outside Dealers—How Games Were Worked.**

Illustrating the ingenious methods of thievery which are possible on the part of employes in the handling of tires and accessories, the discovery has been made by two firms on New York City's "automobile row" that they were being systematically robbed, and in consequence of the discovery and subsequent prompt action, each firm has secured the arrest of two of its men and of an outside dealer working in collusion with them. The firms which have been victimized and are prosecuting are the B. F. Goodrich Co. of New York and the General Auto Supply Co., although their troubles are entirely separate and unrelated.

By the aid of private detectives, the Goodrich company found that two of its clerks, upon making sales of tires at retail for cash over the counter, were not entering the sales as cash retail sales, but would make out the sales slips in the form of sales to a dealer. According to the charges brought against the men alleged to be involved in the scheme, the clerks then would telephone to S. C. Meyer, of 2 Hudson street, a dealer who enjoys full dealers' discounts, and he would sign the slips for them, making the sales appear as bona-fide. They would pay him the dealers' price for the tires that they had sold at retail for cash, keeping the difference in their pockets. The tires being billed to Meyers in due course, he would promptly remit the dealers' price, deducting 5 per cent. for cash in 10 days, this deduction constituting his rake-off for obliging the clerks with his signature when needed. Bench warrants were issued for Meyers and for Walter Burke and Paul Foran, the suspected clerks, and the trio have been held on bail.

A packer and a shipping clerk, operating with an outside dealer who long has been under suspicion by the police department for shady practices, are charged with the scheme by which the General Auto Supply Co. lost thousands of dollars worth of goods. All three, including W. Gavin, the dealer, whose place is in a basement at Eighth avenue and 33d street, and Morris Balsam and John J. McKeon, the two employes, were arrested. Gavin is out on bail, McKeon languishes in jail and Balsam, after giving bail, is missing for the present. It is alleged that Gavin would order a bale of waste or something equally bulky from the Supply company, and that McKeon and Balsam would see to it that the shipment also contained from ten to a dozen Klaxon or Klaxonet horns, or

their equivalent in valuable accessories, none of which extra items would go on Gavin's bill. Gavin would dispose of these accessories at cut prices, it is alleged, making a suitable settlement later with his two friends.

**Babcock Agents Discuss the Electric.**

Agents of the Babcock Electric Carriage Co., of Buffalo, N. Y., gathered at the factory on Wednesday, 10th inst., for a three days' convention in which business and pleasure features alternated and interlarded. The range of discussion for the agents, as provided for in the program, included such topics as the electric outlook for the future, chain vs. shaft drive batteries, wheel vs. "stick" steer, body design, wheel base, extent of territory, deposits, results to be obtained by co-operation with power companies, and similar subjects.

**Metz to Sell Only Through Agents.**

Abandoning the so-called "Metz plan," by which mail order customers bought the parts for Metz cars in separate batches and assembled the machines themselves, the Metz Company, of Waltham, Mass., is now marketing the car exclusively through dealers. The new Metz car sells for \$485, assembled, painted and fully equipped. It is a two-cylinder, 12 horsepower, friction drive runabout, with Bosch magneto, 28 x 3 clincher tires, top, gas lamps and generator.

**Scott New Head of Parish & Bingham.**

At a meeting of the directors of the Parish & Bingham Co., of Cleveland, O., the presidency of the company, recently left vacant by the death of G. W. Morse, was filled by the election of James Scott, of the Carnegie Steel Co., who has been vice-president of the company. William Cairns was made vice-president, and continues as general manager, while S. J. Wainwright, of Pittsburg, continues as secretary and treasurer.

**Rubber Takes a Slump in Price.**

Rubber, which three months ago nominally reached \$3 per pound for the grade used in automobile tires, has taken a decided slump in price, after holding at about \$2.35 per pound for some time. At the fortnightly auction in Mincing Lane, London, on Tuesday, 9th inst., the quotations took a decided tumble, which was reflected in the New York market by quotations of \$1.85 per pound for fine upriver Para.

**Primo Motor in Temporary Plant.**

The Primo Motor Co., which is being promoted with considerable local hurrah in Atlanta, Ga., announces the taking possession of a temporary factory for the manufacture of Primo cars. The building is three stories high, with 15,000 square feet of floor space, and is located on the Georgia Central railroad, near the Fulton Bag & Cotton Mills.

**CASE TAKES OVER PIERCE-RACINE**

**Product to be Known as the Case Car in Future—Manufacturing and Selling to be Expanded.**

The Pierce Motor Co., of Racine, Wis., making the Pierce-Racine car, has been taken over by the J. I. Case Threshing Machine Co., of Racine, and the product in future will be known as the Case car. The present plans provide for a tripling of the motor car production and for the distribution of the cars through the Case selling organization and through such additional dealers as may be selected by the company.

Little surprise is occasioned by the merger, as the principals in the Case company have been the chief stockholders in the Pierce company since its reorganization as an automobile manufacturing company, and it has been more or less a younger brother of the big corporation, which does a gigantic business in agricultural machinery. Not long ago the Case company endeavored to secure control of two of the largest automobile plants in the country, for merger purposes, but when these negotiations fell through, it was decided to enlarge the Pierce-Racine production to a point where it would be adequate for supplying the needs of the Case selling organization, which has its ramifications all over the world. James G. Cowling will continue as general manager of the automobile plant, and A. J. Pierce also will remain as designer. C. L. McIntosh, the president of the Pierce company, recently died in Europe. The officers of the Case Threshing Machine Co. are Frank K. Bull, president; Frederick Robinson, vice-president; Richard T. Robinson, secretary-treasurer, and F. Lee Norton, general manager.

**Franklin to Open Branch in Dallas.**

The Franklin Automobile Co., which now distributes all the cars made by the H. H. Franklin Mfg. Co., of Syracuse, N. Y., is to open a branch in Dallas, Tex., about the first of October. Robert H. La Porte will be manager. The company already has branches in New York, Boston, Chicago, San Francisco, St. Louis, Pittsburg, Buffalo, Baltimore, Cincinnati, Rochester, Cleveland, Albany and Syracuse. It is the intention of the selling organization to make the branches distributing centers for surrounding territory, for the benefit of Franklin dealers and owners.

**Van Motor to Move to Grand Haven.**

The Van Motor Co., of Chicago, Ill., is to move to Grand Haven, Mich. The business men's association of the latter place has arranged to quarter the company in the Coryl Piano Co.'s plant.

**THE WEEK'S INCORPORATIONS.**

Detroit, Mich.—Lion Motor Sales Co., under Michigan laws, with \$10,000 capital; to deal in automobiles.

Cleveland, Ohio—De Luxe Motor Vehicle Co., under Ohio laws, with \$100,000 capital. Corporators—W. G. Moore and others.

New York City, N. Y.—United Motors Co., under Delaware laws, with \$5,000,000 capital. Corporators—C. A. Bates, J. P. Geerlofs, W. O. Cook.

Carlsbad, N. M.—Eddy Automobile Club, under New Mexico laws, with \$3,000 capital. Corporators—J. B. Roberts, B. H. Schwertfeger, J. F. Crozier.

Pittsburg, Pa.—Universal Auto Bureau & Supply Co., under Delaware laws, with \$200,000 capital. Corporators—L. G. Justin, W. G. Crawford, A. M. Binsley.

Toledo, Ohio—E. C. Russell Co., under Ohio laws, with \$25,000 capital; to manufacture automobile trucks. Corporators—Edward C. Russell, Nicholas W. Russell.

Milwaukee, Wis.—Highland Motor Garage Co., under Wisconsin laws, with \$1,000 capital; to operate a garage. Corporators—A. F. Eckstein, S. W. Glover, C. M. Arndt.

Columbia, S. C.—Columbia Auto Co., under South Carolina laws, with \$5,000 capital; to rent and deal in automobiles. Corporators—W. W. Pearce, G. R. McNeill.

Cincinnati, Ohio—J. S. Stevens Auto Co., under Ohio laws, with \$5,000 capital; to maintain a garage. Corporators—J. S. Stevens, J. F. Turner, F. G. Stevens, S. R. Hollin.

Paterson, N. J.—Idle Hour Auto Co., under New Jersey laws, with \$100,000 capital; to construct and deal in automobiles. Corporators—C. A. Isleib, A. Naab, A. Schmid.

Pueblo, Col.—Ideal Motor Car Co., under Colorado laws, with \$25,000 capital; to operate, rent and deal in automobiles. Corporators—Harry A. White, A. E. Fist, H. W. Riggs.

Oshkosh, Wis.—Oshkosh Tire Repair Co., under Wisconsin laws, with \$5,000 capital; to conduct repair shop and garage. Corporators—C. S. Josslyn, E. S. Josslyn, M. Koenig.

Jersey City, N. J.—Pope Motor Co., under New Jersey laws, with \$125,000 capital; to manufacture automobiles. Corporators—F. Koch, W. C. Fisk, C. E. Fisk, all of Jersey City.

Weedport, N. Y.—Auburn Auto Delivery Co., under New York laws; to operate automobiles, motor trucks and delivery wagons for hire, and to do a general automobile business.

Dillon, Mont.—Montana Automobile Supply Co., under Montana laws, with \$20,000 capital; to deal in automobiles and accessories. Corporators—J. P. Best, O. M. Best, M. E. Barry.

New York City, N. Y.—Spencer-Llano-Briner Co., under New York laws, with \$25,000 capital; to do general automobile business. Corporators—C. A. Spencer, H. A. Briner, A. M. Llano.

Norfolk, Va.—Chalmers Motor Co. of Virginia, under Virginia laws, with \$15,000 capital; to do general automobile business. Corporators—W. S. Broderick, G. E. Broderick, Lee Counselman.

Kansas City, Mo.—Pope Hartford Sales Co., under Missouri laws, with \$5,000 capital; to deal in automobiles and accessories. Corporators—George W. Evans, Bruce Dodson, H. W. Jacques.

Jersey City, N. J.—Madison Auto Co., under New Jersey laws, with \$25,000 capital; to manufacture automobiles and motor trucks. Corporators—W. W. Stewart, W. S. Rowland, C. W. Grant.

St. Louis, Mo.—Rex Automobile Co., under Missouri laws, with \$10,000 capital; to operate a garage and deal in accessories. Corporators—A. C. Heibeck, Albert Weiser, Minnie A. Klein.

Chicago, Ill.—Elgin Automobile Road Race Association, under Illinois laws, with \$20,000 capital. Corporators—Fred W. Jenks, W. C. Willson, M. M. Cloudman, Theodore Schmitz, Philip Freiler.

Buffalo, N. Y.—Overland Buffalo Co., under New York laws, with \$25,000 capital; to manufacture and deal in automobiles and supplies. Corporators—H. B. Smith, G. C. Smith, P. C. Citerley.

Indianapolis, Ind.—Chapin Mfg. Co., under Indiana laws, with \$20,000 capital; to manufacture carbureters. Corporators—G. F. Quick, W. S. Boling, Daniel Rosenbaum, W. Y. Chapin, F. A. Chapin.

Waterville, Me.—American Automobile Boiler Feeder Co., under Maine laws, with \$100,000 capital, of which \$60,000 has been paid in. Corporators—George W. Boynton, Matthew S. Goodrich, James H. Murray.

Kansas City, Mo.—Walden M. Shaw Auto Livery Co., under Missouri laws, with \$50,000 capital; to conduct automobile renting service. Corporators—Edward N. D'Ancona, S. J. Pflaum, H. C. McCormick.

Schenectady, N. Y.—Warren-Detroit Distributing Co., under New York laws, with \$1,000 capital; to deal in automobiles and accessories. Corporators—Helen A. Bristol, George S. Shieferlein, Henry R. Gliford.

Buffalo, N. Y.—International Automobile League Tire & Rubber Co., under New York laws, with \$1,000,000 capital; to manufacture automobiles and rubber. Corporators—A. C. Bidwell, W. Preiss, C. H. Bowe.

Brooklyn, N. Y.—Catskill Mountain Automobile Service Co., under New York laws, with \$10,000 capital; to operate motor buses in Delaware, Green and Ulster counties, N. Y. Corporators—Harry Felber,

Arthur Felber, Samuel Weinstein, all of Brooklyn, N. Y.

Richmond, Va.—Imperial Motor Car Co., under Virginia laws, with \$50,000 (maximum, \$5,000 minimum) capital; to do general automobile business. Corporators—S. F. Guggenheimer, E. J. Allen, M. E. Wright.

Chicago, Ill.—Bellevue Place & Rush Street Livery, under Illinois laws, with \$2,500; to conduct livery, automobile renting, storage and hauling business. Corporators—William Brown, V. S. Hay, J. M. Wright.

Saratoga, N. Y.—Northern New York Carhart Automobile Sales Co., under New York laws, with \$10,000 capital; to do general automobile business. Corporators—Wharton Meehan, William M. Gage, James M. Gage.

**Increases of Capitalization.**

Springfield, Ill.—Rayfield Motor Car Co. increases capital from \$74,000 to \$150,000.

Chicago, Ill.—Interstate Garage increases capital from \$5,000 to \$50,000.

**Receiver to Build Continental Cars.**

Authority has been given to the Security Trust Co., receiver of the bankrupt Indiana Motor Mfg. Co., of Franklin, Ind., to proceed with the manufacture of 150 Continental automobiles and to borrow not more than \$25,000 for the purpose of carrying on the work. It was represented to Judge Leathers, of the superior court of Indianapolis, that the work would not require more than 90 days.

**Cotta Transmission in Bankruptcy.**

Bankruptcy proceedings have been brought against the Cotta Transmission Co., of Rockford, Ill., and the Federal court at Chicago, Ill., has appointed Attorney E. M. St. John as receiver. The petition was filed by stockholders who are creditors of the concern. The receiver places the assets of the company at \$75,000 and the liabilities at \$50,000. A reorganization is expected.

**Referee Sells Belmont Property.**

The Belmont Automobile Mfg. Co., of New Haven, Conn., has passed out of existence by the sale of its property at auction by the referee in bankruptcy. The purchasers are A. G. Cheney, H. G. Ingalls and A. D. Woodruff, who are indicated as coming from the vicinity of Albany, N. Y., and whose bid was \$6,415. The manufacturing operations in New Haven will not be resumed.

**Disposes of New Amsterdam Assets.**

Sale of the assets of the bankrupt New Amsterdam Motor Co., of New York City, by the sheriff's auctioneer, on the 8th inst., realized about \$1,700. The liabilities of the concern amount to \$52,226, of which \$20,000 is in two unliquidated claims for damages.

## IN THE RETAIL WORLD.

E. H. Pool, of Ottawa, Ill., has opened a garage and repair shop in Yorkville, Ill. It is located in the old City Hotel.

S. C. Douglas has established a salesroom and garage on Douglas street, Sioux City, Ia.; he will exhibit Buick cars.

The Lexington Motor Co. has commenced business at 1330 Michigan avenue, Chicago, Ill. R. S. Mattoon is its manager.

The Adams & Pruett garage in West Ohio street, Rockville, Ind., has changed hands. Sidwell Alden is the new owner.

Atlantic City will soon have still another garage. Martin W. Newton is building one at 4 North Montgomery avenue, at a cost of \$3,000.

A \$10,000 dollar garage is being built at the corner of Atlantic avenue and South Craig street, Pittsburg, Pa. A. X. Phelan is the proprietor of it.

The Lane-Lynch Motor Co., of St. Louis, Mo., has leased for a long term the building at 1516 Locust street; it is being fitted up as a garage and salesroom.

The Frogner Auto Co. is the style of a new concern which has engaged in the automobile business in Shawano, Wis. Vulcanizing and repairing will be featured.

The Overland Garage and the Victoria Mfg. Co. have erected a new garage at the corner of Bridge and Forest streets, Victoria, Texas. The cost of the structure is \$15,000.

James L. Welch, of Webster, Mass., who conducted an automobile repair shop and accessories business, has filed a petition in bankruptcy. His liabilities are given as \$4,386.93; assets, \$1,260.

Thieves broke into the garage of the Electric Carriage & Battery Co., at 12th and Harmon streets, Minneapolis, Minn., and carried away the entire tool equipment valued at over \$200.

The Joseph Campbell Co., Camden, N. J., is building a new garage at 137 Arch street, 70 x 23 feet, one story high. The structure is to be used as a repair shop in connection with the salesrooms adjoining.

Ground has been broken for a three story garage at Fifth avenue and Seneca street, Seattle, Wash., where Apperson cars and Rapid trucks are to be shown. W. B. Barnes is the owner and manager.

Edward Ellis, formerly salesman for the Royal Automobile Co., has left that concern to engage in the sale of second-hand cars in Minneapolis, Minn. His salesrooms are in the Security Bank building.

D. S. Kruidenier, of Des Moines, Ia., has bought the business of the American Motor Car Co., of that city, and has styled the new company the D. S. Kruidenier Co. Cadillac automobiles will be shown.

Ground has been broken for a new garage on 61st street, near Girard avenue, Philadelphia, Pa. The structure will be one

story high, of brick, 121 x 40 feet, and cost \$6,000. Mitchell Bros. are the owners.

George W. Candler is building a three story fireproof stable and garage at 298-300 Fifth street, Milwaukee, Wis. The building will be 50 x 150 and will have accommodations for at least sixty horses and forty automobiles.

Under the style the Rex Automobile Co., a new company has been formed in St. Louis, Mo., with A. C. Heibel and Manny Klein as the moving spirits. They have established headquarters at 1523 South Jefferson avenue.

W. C. Marsh, who handled motorcycles at 173 Huntington avenue, Boston, and who recently took on Paige-Detroit cars, has formed the W. C. Marsh Motor Co. to exploit his new line. He will continue at the Huntington avenue address.

Under the style the Susquehanna Motor Car Co., a new company has "opened up" at 37 West Market street, Wilkesbarre, Pa. E. R. Pettebone and S. C. Pettebone are the partners in the new concern, which will handle the Cadillac line.

Judge Daniel A. Green, of Birmingham, Ala., has entered the automobile business and is building a garage at the corner of Avenue D and 21st street in his home town. The structure is of brick and concrete, and will cost, when complete, \$9,000.

W. B. Davis, E. H. Putt and several others of Cleveland, Ohio, have organized the Kissel Kar Co. of Cleveland, and opened salesrooms at 2344 Euclid avenue. W. B. Davis, the general manager, formerly was salesman for the Chalmers-Detroit Motor Co.

Si Perkins, who conducted a garage at 26-28 Eighth street North, Minneapolis, Minn., has sold his interest to the Clark-Carter Auto Co., of Jackson, Mich. Cutting "40" cars will be shown by Perkins, who has been retained by the new owners as sales manager.

The Royal Livery Co., of Pueblo, Col., has found it necessary to add an automobile delivery branch to its livery stable. A garage, 120 x 50 feet, has been built adjoining the old livery stable, and the company has changed its name to the Royal Garage & Livery Co.

The Kerr-Doane Motor Co., Syracuse, N. Y., has commenced the erection of a new garage at the corner of South State and Cedar streets. The building is to be 60 x 120 feet, of steel and tapestry brick, with hardwood floors, and will afford accommodation for 45 cars.

Hereafter Stevens-Duryea cars will be handled in St. Louis, Mo., by the Chicopee Motor Car Co., a new company which just has been organized by George N. Booker, J. J. Blinkoe and others. They have leased the former Brown-Gardener garage at 5141-43 Delmar boulevard and installed a complete repair plant.

A garage of unusual architectural beauty is being built for the Detroit Motor Sales Co. at the corner of Woodward and Canfield streets, Detroit, Mich. The structure is 150 x 50 feet, of pressed brick and concrete, and will include garage, salesroom and a complete machine shop.

The Levy & Hipple Motor Co., of Chicago, Ill., has filed notice of dissolution, George W. Hipple withdrawing from the company. The name of the company has been changed to the Chalmers Motor Car Co. of Illinois, and James Levy continues as president and treasurer, while Charles T. Gregory is named as the new general manager. A branch house will be opened at Peoria, Ill.

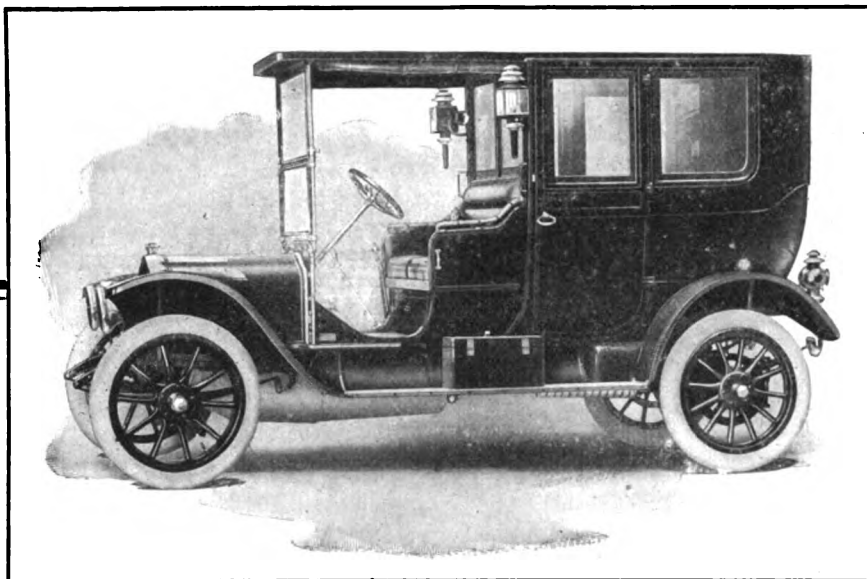
M. F. McCoolle and B. B. Mercer have formed a partnership and opened a garage and salesroom at 24-26 West Fifth street, Oklahoma City, Okla., where they will exhibit Chalmers cars. Neither of the partners heretofore has been identified with the automobile business, McCoolle having been connected with the National Cash Register Co. and Mercer with the Burroughs Adding Machine Co.

Jacob P. Anderson and S. A. Lee, both of Cincinnati, Ohio, have formed a partnership, which will be known as the Elmwood Place Auto Top & Supply Co. The factory which they are preparing to build will be located at Carthage pike and Beech avenue, Elmwood Place, a suburb of Cincinnati. Besides manufacturing tops and accessories, the new firm will handle general repair work.

Planning to build a large garage, and to store, repair and fit out their cars on the co-operative plan, a number of Cleveland residents have formed an organization to be known as the Automobile Owners' Low Maintenance Association. J. J. Houska and Emil E. Masl are the chief supporters of the scheme, which, as is usual in such schemes, includes the buying of all supplies at wholesale prices.

Harry A. White, E. A. Fist and H. W. Riggs, all of Pueblo, Col., have purchased the automobile interest of the Pueblo Novelty Works & Automobile Co., at 813-815 North Main street, and have organized under the style the Ideal Motor Car Co. The new firm will feature the Stoddard-Dayton and Alco lines, and will act as distributors for southwestern Colorado. H. A. White will be the active manager of the business.

A double garage and salesroom just has been finished at Delmar and Clarendon avenues, St. Louis, Mo., and will be occupied by the Park Automobile Co., and C. F. and J. R. Brown. The Park company handles the Chalmers, Thomas, Hudson and Baker electric cars, while the Browns show Peerless gasoline cars and Detroit electrics. The double building housing these two companies is two stories high, of the heaviest concrete construction and said to be absolutely fireproof.



## The Aristocrats of Town Cars

**I**N that service in which style is indispensable—town cars for Winter use the White Limousines and Landaulets are offered as conspicuous examples of correctness. There is an indefinable air of style about them—a patrician elegance evident in every line—the master touch of the artist who has overlooked no detail. The appointments are rich and luxurious without being obtrusive—the hidden things are as carefully handled as though you were to see them.

### About Size—The Limousine.

Without being cumbersome or unwieldy the body is large enough to carry five passengers comfortably, yet has a neatness and trimness out of all proportion with its actual capacity—one never feels it is too large even when alone, yet it is not crowded when every seat is occupied.

### The Appointments.

The inside dome Electric Lights, the toilet articles, the silk curtains which shade the French plate windows, are all of a quality and sumptuousness which marks the White products. The Broadcloths, Whipcord or Leather upholstery is offered in any shade desired, and of a quality in keeping with other details. The window sashes are of polished rosewood, brass beveled, and the doors are extremely wide and low. In fact, nothing has been overlooked that could contribute to the air of distinction characteristic of the White cars.

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"Enclosed please find check for renewal of my subscription for the Motor World. It is an excellent journal and I like it very much."—A. F. Pringle, Northfield, Minn.

#### Taxation on an Engineering Basis.

The justice and necessity of the cause which seeks either for Federal regulation of the automobile question or of an equating of statutory provisions daily is becoming more clearly apparent. The very rancor existing between various states which at present are seeking to establish reciprocal licensing provisions points to the wisdom of accomplishing some definite movement in the right direction and that right speedily. The growing employment of commercial motor vehicles in established commerce suggests even graver complications than now exist before many years shall have rolled around.

But a new light is thrown on the question by the masterful exposition of the

subject presented to the automobile engineers at their recent meeting by Mr. Chas. Thaddeus Terry. With true expository force it seeks not to express a remedy but to indicate the quarters in which remedial forces may be developed. Likewise it reveals new and unexplored depths of reasoning rendered possible by the principle of highway taxation based upon the use of the roads: If road wear is to be the basis of taxation, what is to be the unit of road wear? Shall the weight, speed, motive force or purpose of the vehicle be taken into account—and how? These and other questions arise when the crumbs of logic are sifted out of the present situation.

As an engineering problem, the quest for a just basis for automobile taxation seems to develop even more possibilities than are discoverable when it is treated merely as a problem in modern civics. Back of the absurdities of differential states' laws, back of the injustices of special taxation for inherent privileges, back of the deprivation of constitutional rights—all of which are claimed to exist by those who are seeking to right the present turbulence—lies the broad question of the highway itself, and the need that it be standardized to meet the requirements of modern traffic. Perhaps the wheel tax is more equable than the land tax when it comes to road maintenance, but after all, what the man in the car wants immediately is the right to travel where and when he pleases without fear of frontier hold-ups and whether he travels on foot, by rail or in his motor car.

#### Developing the Light Motor Truck.

Before showtime comes 'round again there promise to be as many ways of expressing the fact that a new model touring car has two doors in front and two behind as there are expressions to denote the snug and abbreviated tonneau. Not that the activities of the designers and press agents who are so busy inventing new names are at all to be deplored, even when they are so anxious for distinction as word-builders as to resent the use of names of their own coinage by other designers and press agents. The multiplication of designations merely adds a trifle to the perplexities of the unsophisticated intending buyer and lends an atmosphere of gay variety to the "automobile row" of any town where half a dozen similar cars of different make may happen to be displayed in adjacent windows under varying class names.

But one point in connection with the popularization of the high-sided touring car, whatever its fancied name may be, is worthy of attention. The high sides afford ample protection against dust and mud and against the chill draughts of spring and fall; during the winter months, naturally, they will be appreciated to their full value. But for travel during the hot summer season, particularly when the top is down, they promise an amount of warmth which it is far from pleasant to contemplate. Therefore those manufacturers who, foreseeing possible objections to the full torpedo touring type, have provided removable doors, may be supposed to be on the right track. With this arrangement, the car may be, at will, either a full torpedo or what is virtually a surrey. Either type is particularly useful under certain climatic conditions. The possession of a vehicle which could be used in either capacity at small inconvenience in making the conversion should appeal to a large number of buyers.

#### A Question of Spelling and Utility.

Speaking of the commercial vehicle it is pretty generally conceded that there is a big demand for the light trucks suitable for medium loads and for heavy delivery purposes in particular. Similarly it is conceded that a thoroughly suitable machine of this class is exceedingly hard to find: by some critics it is even claimed that the ideal vehicle of a thousand or fifteen hundred pounds capacity is yet to be produced. Certain it is that whereas the motor truck is fast approaching a highly satisfactory stage in its evolution, its lighter counterpart is not experiencing a corresponding advancement.

Viewed in a general way, this is rather an astonishing conclusion. Regarded purely as a manufacturing proposition, however, it is easy to see that it is a natural result of a logical economic condition. Briefly, 90 per cent., more or less, of all production represents the toll of hand labor; hand labor is relatively a fixed charge; and given a certain number of fixed operations necessary to produce a definite number of parts, it matters little what are the dimensions of those parts.

As was pointed out two or three years ago, when the general inclination to build cars of 30 horsepower or less instead of larger cars was strong upon a majority of the makers, the respective cost of two cars of similar design is well-nigh independent of



their size, power and weight. Where the only difference between the two models is a dimensional difference, the practical saving in the cost of the smaller vehicle is represented by the saving in weight multiplied by the average cost of materials.

Specifically, it may be explained that the reason why it is easier to build a good truck of three tons capacity than it is to build an equally substantial car to handle a half-ton load is that the production cost does not vary in proportion to the capacity. It is not necessarily true that it is impossible to build as reliable a car of medium capacity as can be made in larger size; the question is entirely one of selling price. And whatever may be said of the respective qualities of various freight-carrying machines now on the market, the fact remains that the buyer has not as yet been educated to an appreciation of the true value of the commercial car; nor has the commercial branch of the industry settled down to a point where the builder safely can take a normal manufacturing profit and let down the price to its lowest safe point.

The case of the light delivery car is altogether different. That reaps a better advantage from the pleasure vehicle end of the industry, labors under less exacting requirements and can be produced at a more economical figure. By retaining the general form of the pleasure chassis and increasing the size of its parts, it is possible to produce a fairly satisfactory, medium capacity, small truck on the same basis. Some of the very efficient municipal service cars now in use represent this sort of effort. But for the real light truck construction, while the effort is young and the market underdeveloped, the price question is bound to prove difficult of adjustment. The secret of success with the class of machine in question, of course, must lie in multiple production. But until big outputs are possible, that type is likely to be the subject for no little misunderstanding.

Badges that look like the discarded tops of shoe blacking tins, and number plates with loosely attached and jaggedly arranged digits that fall off when a car strikes a severe bump, hardly seem in keeping with the dignity which should mark the operation of the automobile law of the Empire State. The chauffeurs' badges and the number plates are as shoddy products as ever were offered, and are glaring indices of either graft or incompetence.

## COMING EVENTS

August 11, Algonquin, Ill.—Chicago Motor Club's annual twin hill climb.

August 11-21, Rochester, N. Y.—Automobile Club of Rochester's annual tour.

August 12-13, Philadelphia, Pa.—North American's reliability run for commercial motor vehicles to Atlantic City, N. J., and return.

August 13, Newcastle, Ind.—Newcastle Fair Association's race meet.

August 13, New York City—Motor Racing Association's matinee at Brighton Beach track.

August 15, Philadelphia, Pa.—Start of second annual Munsey Historical Tour, ending at Washington, D. C., 1,700 miles.

August 19-20, New York City, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race met.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 24-26, Omaha, Neb.—Omaha Motor Club's three days' endurance run.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 30, Washington, D. C.—Automobile Club of Washington's hill climb.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

August 31-September 8, Kansas City, Mo.—Automobile Club of Kansas City's reliability contest.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 3, Wildwood, N. J.—North Wildwood Automobile Club's reliability run to Philadelphia.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5, Wildwood, N. J.—North Wildwood Automobile Club's beach race met on Ocean drive.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society Automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 10-12, New York City—Motor

Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 17, Norristown, Pa.—Norristown Automobile Club's race meet.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at Fair Grounds track.

September 21-23, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

October 20-22, Atlanta, Ga.—Atlanta Automobile Association's meet at motordrome.

November 5, Phoenix, Ariz.—Maricopa Automobile Club's Los Angeles-Phoenix road race.

November 6-15, San Antonio, Tex.—San Antonio Automobile Club's race meet.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

March 4-12, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

January 17-24, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

## SECRET TIME SYSTEM SUCCEEDS

**Stops Scorching on Brooklyn Dealers' Two Days' Endurance Run—One Exception Conspicuous—Results Delayed.**

Within two hours of the time the first car arrived at the last checking in station of the Long Island endurance run of the Brooklyn Motor Vehicle Dealers' Association, Wednesday evening, the 36 others had

be said to have proved efficacious. In one instance, however, the new method of vaccination failed to "take."

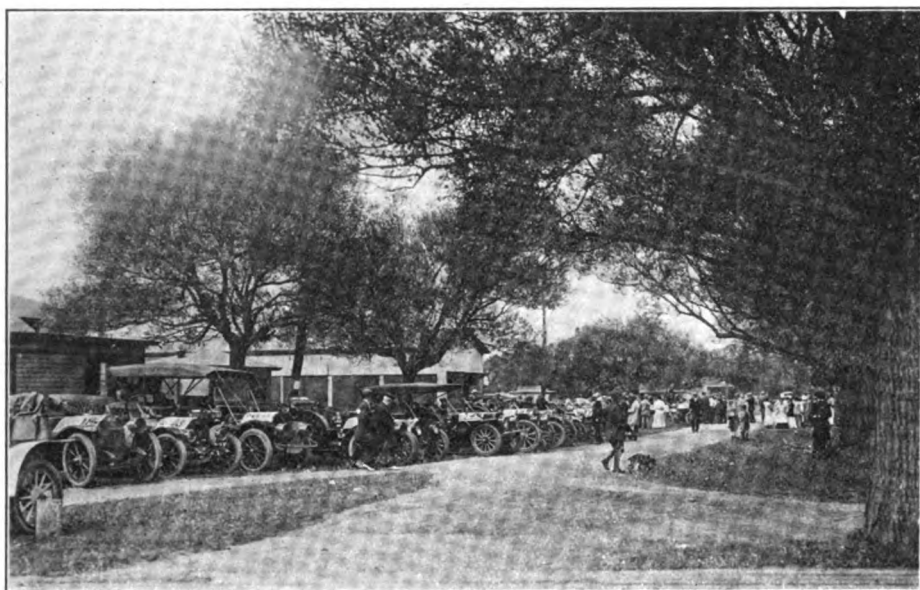
There was one youngster at the wheel of a speedy car who just couldn't get the germ of rapidity out of his system, so he "beat it" at intervals, stopping completely between to offset running ahead of the time allowance. With monumental pig-headedness he managed to open up eight times out of ten where the dust was thickest, bringing down on his head something

ing himself manager, although previously styling himself "secretary" in the mimeograph literature he sent out as publicity promoter for the affair.

While a Brooklyn affair, the borough of churches had no monopoly of entries. D. M. Bellman, the Hupmobile entrant, runs a garage at Bellport, Long Island, while Manhattanites included were the Cimmotti Bros. with a train of three Pullmans (unvestibuled); W. P. Mallon, of the Paterson; J. Mora Boyle, of the Midland; the Haynes Co., and the Bryant Motor Co., Kline distributors, all of that borough.

There was some lively work necessary to prevent another postponement. For instance, H. G. Martin hired a special float to get his 1911 model Inter-State from Weehawken the night before the start. In spite of the various drawbacks that discouraged the promoters up to a week beforehand, all but two of 39 entrants toed the mark for the start. The only two cars scratched were in the tourist class—the White steamer, of E. A. Bofinger, and the Stevens-Duryea, of Julius Bindrim. The latter put his car out of commission the day before by stripping the gears, but went along as an observer.

All but seven of the 37 starters were in the tourist division. They had not gone far before they realized that the stunt was the most comprehensive and exacting ever held on Long Island. Montauk, Promised Land and Goose Creek were about the only places not invaded.



COMPETING CARS IN PARK AT THE SOUTHAMPTON CONTROL.

all put in an appearance. That was a better showing than had been expected of some of the lower powered vehicles, at least, judging by their schedules of Tuesday. Furthermore, the last two or three hours' run by all hands was in a hard rain, and those home last caught the heaviest of it.

Of course, the technical committee has reserved its awards for a day or two; when the announcement comes several cars will be lacking clean scores, but on the heels of the wind up the affair appears to have been decidedly more of a success than seemed likely ten days ago. Originally set a month earlier, the July date was considered too late, but at that many dealers could not complete their preparations in time, so August was the only recourse. It was the first contest held by the new organization.

Perhaps the feature of the run was the attempt to prevent speeding by a system of secret controls, supplementing and checking in safeguards at a number of uncertain points. Here and there—once at least close to a dangerous turn—the technical committee popped up to read the speedometers and note the time. The idea was to curb a few thoughtless individuals who cast discredit on the recent "Montauk Point or Bust" run by their speeding. In general, the plan of fancying that an Indian lay in ambush behind every clump of shrubbery may



BROOKLYN DEALERS AND OTHERS—APPROACHING SMITHTOWN

beside the particles that he caused to descend upon others. Where the roads were well oiled or had lately been visited by rain, his inactivity was masterly.

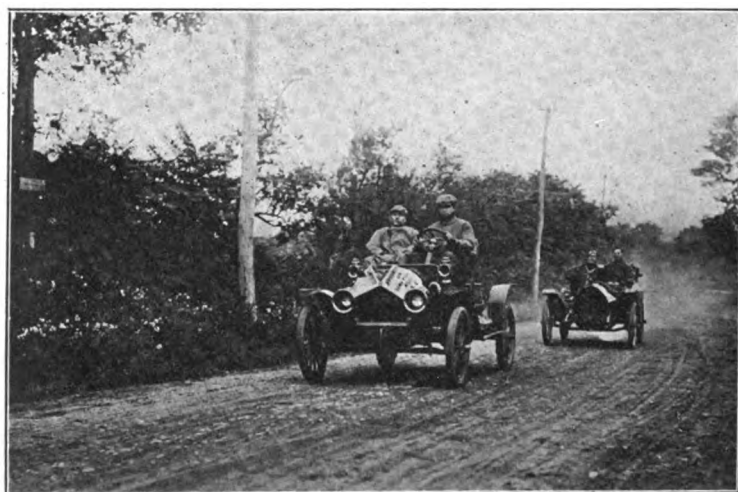
While W. H. Kowenhoven as president of the new association of dealers was much in evidence, all the active management radiated from Edward F. Korbel, the press agent, who appropriately appeared at Southampton with an arm band proclaim-

The first fuel control was at Smithtown. To that point stiff grades were plentiful. From Smithtown a sharp turn was made southward across the island to Patchogue, the luncheon stop. Thence the run was through the Hamptons to Amagansett. There the trail—that word is used advisedly—led northward through the woods toward Sag Harbor, although a southerly detour back through Easthampton was

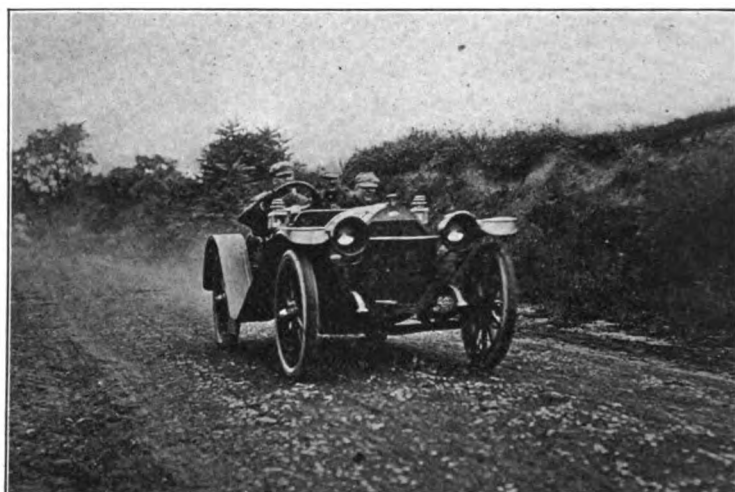
necessary thereafter to reach the once famous whaling port. From Bridgehampton to Southampton the outward route was retraversed, the night stop being in the latter village. The Southampton hotel and garage accommodations were found insufficient, it being in the height of the re-

stop, the return to town was via Hicksville to the South Shore road. Just beyond Huntington an ocean of oil has been freshly put on the road, seemingly with a hose instead of a sprinkler, affording the best chance of the trip for skidding. Too much parsimony was shown in distributing

lumbia; Jos. D. Rourk, Haynes; W. H. Kowenhoven, Locomobile; Bruns Auto Co., Hudson; Bishop, McCormick & Bishop, Ford; H. G. Martin, InterState; I. M. Allen Co., Stevens-Duryea; I. C. Kirkham, Maxwell; F. W. Mathews, Ford; Grant Sq. Auto Co., Halladay; Carlson



THE NEIGHBORLY FORD AND HUPMOBILE CARS



THE LOW-HUNG KLINE CAR ON THE ROAD

sort season. Accordingly many motorists had to sleep in private houses, while the garage chartered was filled as closely as does a sausage its bareskin overcoat. The speedometer average for the first day was 178 miles.

Wednesday morning the turn led from Southampton to Riverhead and thence to Greenport, a more northerly route being followed along the north shore in returning. At Yaphank, in nearly the center of

confetti, which was cut into flakes nearly as large as mustard seeds, not more than seven of which were delivered at the same place. If such economy is desirable, why not save by buying second-hand confetti. Finally the paper trail was disregarded in favor of the road signs.

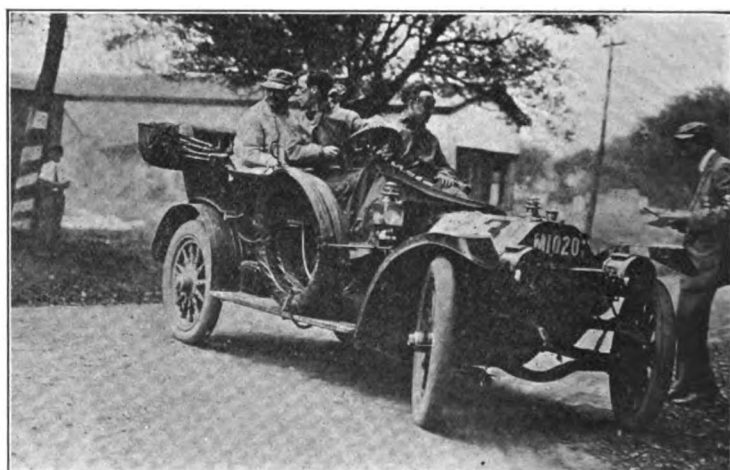
The awards will be made in the contesting division in six classes, graded according to price.

The first arrival at the final checking sta-

Auto Co., Winton; Enterprise Garage Co., Auburn; Cumberland Garage, Velie; D. M. Bellman, Hupmobile; Schapp Auto Sales Co., Krit; Mears Auto Co., S. G. V.; Carpenter Motor Vehicle Co., E-M-F "30;" Bryant Motor Co., Kline; G. W. Garland, Jr., Speedwell; W. H. Flessel, Maxwell; I. C. Kirkham, Columbia; Bruns Auto Co., Chalmers; J. Mora Boyle, Midland; Haynes Auto Co. of New York, Haynes; I. C. Kirkham, Maxwell; Prospect Park South



THE HUDSON READY FOR SKIDDING WEATHER



THE LOCOMOBILE TURNING IN CLOSE QUARTERS

the island, a northerly path was taken to Port Jefferson, which is known only as Jeff since the recent benefit for the moving picture photographers in Nevada.

The early afternoon brought several miles run through the woods in almost as narrow a track as was the case Tuesday, north of Amagansett. If tops had not been furlled they would have been carried by the board. From Huntington, the luncheon

tion Wednesday evening was W. H. Kowenhoven's Locomobile at 6:10 p. m., the first dozen following in order being Midland (Kline), Pullman (W. W. Lee), Pullman (F. Cimmiotti), Pullman (Ellis Kulp), Winton, S. G. V., Auburn, Interstate, Chalmers and Halladay.

The entrants and their cars were as follows:

Contesting division—I. C. Kirkham, Co-

Garage, Crawford; A. W. Blanchard, Herreshoff; C. T. Silver, Overland; Cimmiotti Bros., Pullman; Cimmiotti Bros., Pullman.

Tourist division—Bishop, McCormick & Bishop, Ford; H. G. Woodworth, Cadillac; W. P. Mallon, Paterson 30; Allen Swan Co., Stearns; W. S. Williamson, Cartecar; W. A. Kiley, Winton; Cimmiotti Bros., Pullman; Suffolk Elec. Co., Ford,

**SPOTLIGHT PLAYS ON BARNEY**

**Real Calcium at Point Breeze and Oldfield Basks in Its Rays—Only Stray Beams for Ringler and Ben Kirscher.**

Barney Oldfield was in the spotlight most of the time at the six hour race last Saturday at the Point Breeze track, Philadelphia, held under the auspices of the Quaker City Motor Club. He won the chief event, beside breaking the mile track record.

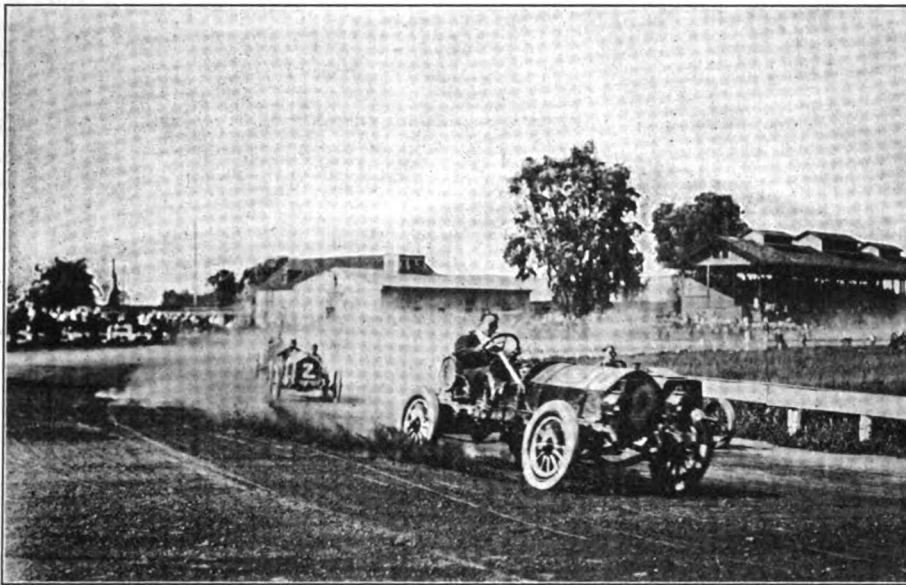
The term "spotlight" is used advisedly, inasmuch as one hundred calcium burners, such as are used for the lime lights in theatres, with powerful reflectors, were tried,

contests Oldfield did a mile in one minute flat and on a second trial made 59 $\frac{3}{4}$  seconds, establishing a new local mark.

Kirscher failed to lower the five miles record. If the frosting of the cake went to "the one and only," Harvey Ringler won a few crumbs. He captured two ten miles events, and made the fastest time of the day at that distance, although Oldfield in the Knox found the ten miles open event comparatively easy. The summaries:

One mile trials against track record of 1:01—Won by Barney Oldfield, Blitzen Benz; first trial, 60 seconds; second trial, 59 $\frac{3}{4}$  seconds.

Ten miles scratch race—Won by Sherwood, Mercer; second, Jones, Mercer. Time, 12:28 $\frac{3}{4}$ .



OLDFIELD SETTING THE PACE AT POINT BREEZE

for the first time, giving general satisfaction. More than 6,000 gallons of crude oil, according to the publicity agent, or three times as much as was ever used there before made slipping easy.

Oldfield, while never headed, was kept busy every instant by Morton in the Kline car. At the end of the first hour the Darracq, driven by Kirscher, and Morton were tied for second place at 44 miles, to 46 for Oldfield. Second place was taken by Morton at the end of the second hour, seven miles behind, with Kulick third, three miles in the rear. Kulick took second place the third hour, while the next sixty minutes brought a lively struggle between Kulick and Fairman for second position. The two were tied at 209 miles, the fifth hour, but toward the end the Fairman "cinched" second honors. At the finish Oldfield had 261 miles to his credit, Fairman 245 miles, Kulick 226, the Selden 223, and the Chalmers 218 miles. Kirscher and Ringler did not finish. As the former dropped out during the third hour, Kirscher served as substitute for Oldfield at the end of the latter's limit period. In the preliminary

Ten miles race open to Class C cars, 161 to 300 cubic inches—Won by Ringler, Pullman; second, Jones, Otto; third, Ford. Time, 11:33 $\frac{3}{4}$ .

Ten miles, open to Class C, 450 cubic inches or under—Won by Ringler, Pullman; second, Kulick, Ford. Time, 11:20.

Five mile trial against record of 5:13—Ben Kirscher, Darracq. Time, 5:21 $\frac{3}{4}$ .

Ten miles open to Class C cars, 750 cubic inches and under—Won by Oldfield, Knox; second, Kirscher, Darracq; third, Fairman, Kline. Time, 11:34 $\frac{3}{4}$ .

**Lowell May Try Again for Its Race.**

As the eager little town of Lowell, Mass., reads its cards now, it is going to get that big automobile race after all. After a long struggle to work public sentiment up to just the right point for it to support the race boom, enough antagonism developed to make it seem wise to call the whole thing off. Since abandoning the project, however, those interested in it have experienced a revival of courage, and they now announce that the race will be held, "injunction or no injunction."

**AN INVASION OF NEW ENGLAND**

**Oldfield-Kirscher Combination Goes to Hartford and Divides Spoils of Speed—One Six States "Record" Set Up.**

New England has been invaded by the Oldfield-Kirscher racing combination, and the invasion was the occasion for the reopening of the Charter Oak track, Hartford, Conn., on Tuesday of this week, 9th inst. The old race course has not been stirred by the dust of a motor car contest for quite a while. Therefore a good crowd—some said as many as 6,000 persons—gathered to view the sport. The course had been massaged for the occasion, so that the dust was well pulverized. Nevertheless there was but one spill, when Myron Spencer, a mechanic, was tossed out of a Houghton-Rockwell car. Spencer was not seriously injured, but the car suffered a broken wheel and so was prevented from finishing the 50 miles free-for-all.

As is customary with meetings on the Oldfield circuit, at least one "record" was broken. The particular mark to fall on this occasion was the mile track record—"for New England." Oldfield himself made it in 51 $\frac{3}{4}$  seconds, driving the big Benz.

The feature number on the program was the 50 miles race, which brought out the entire company, including several local supernumeraries. There were Oldfield and Kirscher, driving Knoxes; George Mack, Stanley Martin and Edward Ives, driving Houghton-Rockwell machines, and Lewis Strang, who has been out of the spotlight for some time, who essayed to pilot an Allen-Kingston. It was Oldfield's race from the start, despite the fact that he had to stop once for a tire change. Saving the Allen-Kingston, all the others were disposed of before Oldfield crossed the tape after 51 minutes 55 seconds of driving. One minute and five seconds later Strang arrived.

Oldfield captured both of the five miles events, while Kirscher made a two miles exhibition performance in 1:45 $\frac{3}{4}$ . The aggregation then prepared to move on to its next stand, which is Worcester.

**The summaries:**

Two miles against time, Ben Kirscher, Darracq—Time, 1:46 $\frac{3}{4}$ .

One mile against time, Barney Oldfield, Benz—Time, 0:51 $\frac{3}{4}$ .

Five miles free-for-all—Won by Barney Oldfield, Knox; second, Ben Kirscher, Houghton-Rockwell; third, George Mack, Houghton-Rockwell. Time, 5:27 $\frac{3}{4}$ .

Five miles handicap—Won by Barney Oldfield, Knox (10 seconds); second, Ben Kirscher, Darracq (scratch); third, George Mack (17 seconds). Time, 5:20 $\frac{3}{4}$ .

Fifty miles free-for-all—Won by Marney Oldfield, Knox; second, Lewis Strang, Allen-Kingston. Time, 51:55.



## RACE IN HONOR OF "KING COTTON"

**Three Days' Galveston Meet a Carnival  
Feature—Home Talent Scores and  
DeHymel Lands a Near-Record.**

Ideal weather, admirable policing of the course, and complete freedom from serious accidents—all these combined to make the three days' race meet on the Galveston beach, August 3d, 4th and 5th a most successful affair. It formed a part of the city's cotton carnival and was witnessed by thousands who had never seen an automobile race, and who enthused accordingly, and as J. W. Munn, a local driver, was one of the star performers and the biggest winner, local pride was well satisfied. And although the crowds diminished in number each day, the enthusiasm waxed warmer, until it reached its climax at the end of the third day, when it was announced that Tobin de Hymel, driving a Stoddard-Dayton, had broken the world's record for 200 miles on straightaway courses. His time was 3:02:22, which certainly is fast—but it is no world's record.

As in most meets of this sort, the humorous side of life was not entirely obliterated, and the dogs of Galveston did their part in providing all the fun (for some people, at least) that any reasonable person could expect. How many of them ambled across the course and fled with tails between their legs a few seconds later, when one of the racing cars whizzed past them, it is impossible to say. There were hundreds of them! At the next meeting Galveston will install an official dog catcher on the course.

### First Day—August 3d.

About 15,000 people were on hand for the first day, there being more fast cars competing than ever before there, while the events were unusually well balanced. The crowd was far easier handled than at the races the year before. The track condition at the starting hour, 2 p. m., was rather poor, owing to high tide, so that motorcycle contests were first run off. The longest, most exciting race was the 50 miles free-for-all, in which there was much shifting of positions on the several laps and one narrow escape, when a National, driven by J. W. Munn, of Galveston, owing to temporary trouble with the steering gear, came near to plunging head on into the ocean. Ben Johnson, in the Chadwick 60, won in 42:56½.

There was a clean start in the 30 miles event, but at the end of two-thirds of the distance the affair had narrowed to two Nationals. The one driven by J. W. Munn won in 27:57¾, with Sundin's car second, a shade more than two minutes later.

The 20 miles event for stripped chassis of from 231 to 300 cubic inches also was

fought out by two cars of one make, Marions, the half dozen other entrants withdrawing before the start, materially reducing the interest. Lee Carroll won in 21:42, while Paul Plummer crossed the line in 23:32¾.

The other 20 miles race for stripped stock chassis of from 161 to 230 cubic inches went to Petit in a Buick in 21:42, with Delvitt, also in a Buick, second. Withdrawals and a poor start took the edge off public attention. The summary:

Fifty miles, free-for-all—Won by Johnson, Chadwick 60; second, DeWitt, Buick; third, Brinker, Inter-State. Time, 42:56:45.

Thirty miles, stripped stock chassis, 301 to 450 cubic inches—Won by Munn, National; second, Sundin, National; third, Brinker, Inter-State. Time, 27:57¾.

Twenty miles, stripped stock chassis, 231 to 300 cubic inches—Won by Carroll, Marion; second, Plummer, Marion. Time, 21:42.

Twenty miles, stripped stock chassis, 161 to 230 cubic inches—Won by Petit, Buick; second, DeWitt, Buick. Time, 21:42¾.

### Second Day—August 4th.

The second day the crowd fell off about one-third. The feature of the day was the victory of Capt. J. W. Munn of Galveston, who won the 20 miles race in a National 40, beating De Hymel of San Antonio in a Stoddard-Dayton after the latter seemingly had victory within his grasp. Stopping a few moments for a minor adjustment during the 19th mile, the San Antonio boy lost so much ground that the best he could do was to come in third. Munn also took the 10 miles race for big cars in 8:09:35. Wind from the south caused high tides and somewhat delayed the start. The sand, however, was in better shape than the first day, but the one mile time trials with flying starts did not satisfy anybody. Zengle, Chalmers, made the best time, 40¾ seconds, but all concerned previously had made better time.

The ten miles event for cars of from 161 to 230 inches displacement was won by DeHymel in the Stoddard-Dayton by a safe margin in 11:52¾. Petit, Buick, second, and DeWitt, Buick, third.

In the ten miles race for stripped stock chassis of from 301 to 450 cubic inches Munn steadily drew away from Sundin in the National and Wells in a Moon, who finished in that order.

The ten miles for cars of from 231 to 300 inches displacement was captured by Carroll in the Marion after sensational work in the first five miles. The summary:

Twenty miles stripped stock chassis, 451 to 600 cubic inches—Won by Munn, National; second, Sundin, National. Time, 17:23.

Ten miles, stripped stock chassis, 161 to 230 cubic inches—Won by DeHymel, Stoddard-Dayton; second, Petit, Buick. Time, 11:52.

Ten miles, stripped stock chassis, 301 to 450 cubic inches—Won by Munn, National 40; second, Sundin, National; third, Wells, Moon. Time, 8:51¾.

Ten miles, stripped stock chassis, 231 to 300 cubic inches—Won by Carroll, Marion; second, DeHymel, Stoddard-Dayton. Time, 11:10.

One mile time trials, flying start—Won by Zengle, Chadwick; second, DeHymel, Stoddard-Dayton. Time, 40¾.

### Third Day—August 5th.

The third day, finally, brought the big event—the main bout, so to speak, in comparison to which the others were mere preliminaries—the 200 miles free-for-all. Thirteen cars had been entered for this event, but just before the start two of them, the Simplex and the moon, were scratched, and a Hudson "20" substituted, so that only twelve faced the starter. DeHymel, in a Stoddard-Dayton, got away in front and was never headed. The pace gradually killed off all but four starters, DeHymel, Johnson, Munn and the little Hudson driven by E. H. Labadie, which, however, was 60 miles behind, but running in perfect form when the winner crossed the tape. A collision between the Marion and the Buick occurred just after the Marion had finished the eleventh lap and pulled up to the pit for some adjustments. The Buick is said to have been left too far from the pit, and in the way of the Marion. No one was injured. In addition to winning first prize, DeHymel also won the special prizes for the best time for the first 100 miles and 150 miles.

#### The summary:

Two hundred miles, free-for-all—Won by Tobin DeHymel, Stoddard-Dayton; second, Ben Johnson, Chadwick; third, J. W. Munn, National. Time, 3:02:22.

### Will Enforce "Thirty-day" Clause.

Although it has been necessary to exercise a little lenience in enforcing the "thirty day" clause in regard to the filing of stock car certificates heretofore, Chairman Butler, of the contest board of the American Automobile Association announces that hereafter the rule will be strictly enforced. In other words, not only must certificates describing stock models be filed with the contest board before cars of a given make and model will be permitted to compete in stock car events, but after the 10th inst. no stock cars will be eligible for competition until 30 days after the filing of certificates that applies to them.

### Horseflesh Losing Favor in Paris.

As indicating the rapidly decreasing use of horses in Paris it has been discovered by recent computation that only 76,047 animals would be available for requisition in time of war now, as against 98,284 in 1901. The figures thus reveal a decrease in ten years of no less than 22,237 horses.



**DISCLOSES MANY NEW FEATURES**

**New Twombly Car Distinguished by Quick  
Convertible Body and Demountable  
Power Plant.**

Possessing as a nucleus the fertile imagination and large stock of inventions of W. Irving Twombly, the Twombly Motor Co., of New York City, a million dollar corpor-

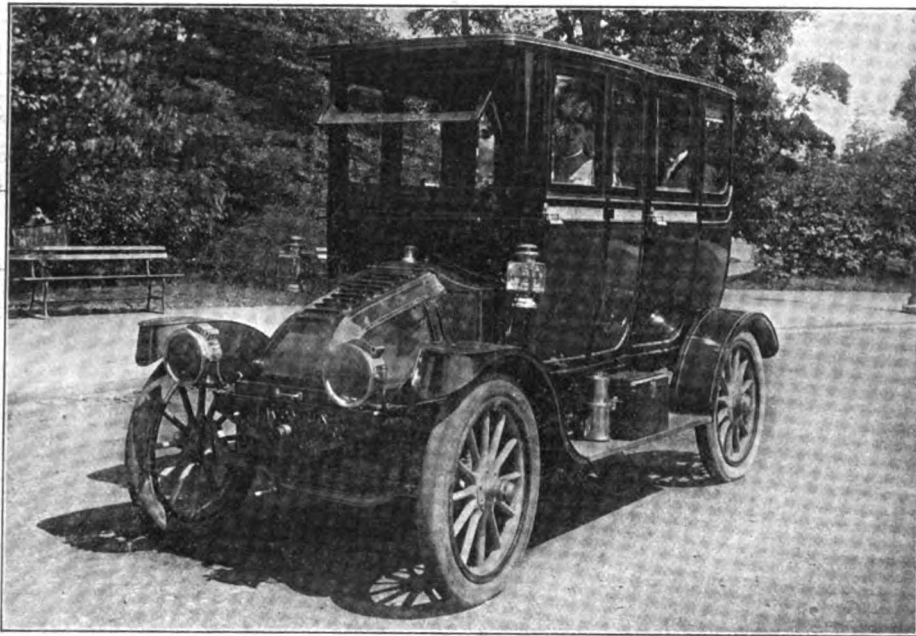
Although the radical ideas and unusual products of the inventor, who is vice-president and general manager of the Twombly company, have come to light at various times, the direction of his present plans and their magnitude were not generally known until this week. On Monday, however, at a special demonstration and luncheon given to the press at the Automobile Club of America, a special car was exhibited which is said to embody the prin-

time by a simple process of dropping the windows and folding roof and corner posts.

The second unusual point about the machine, and the one which is most revolutionary in its nature, is the construction of the power plant. By an ingenious combination of dovetailed tenons and pipe and shaft connections, the entire plant is so contrived that it may be withdrawn from the front of the car for purposes of repair or replacement; the dismounting of the motor alone or of the motor and change gear unit occupying an astonishingly short time. Indeed, during the aforementioned demonstration at the Automobile Club the complete operation of removal and replacement was accomplished in three minutes on several occasions, and once or twice in the almost incredibly short space of two and one-half minutes.

But it would be an injustice to the designer of the new vehicle to let it be supposed that the convertible body and demountable power plant are its only unusual points. Indeed, the entire machine reflects the result of six years independent effort in motor car construction. The motor and change gear are original, apart from their special feature of interest, and many of the structural incidentals are obviously contrived for the specific purpose to which they are applied.

Turning to the body construction in detail, the accompanying illustrations afford a good idea of the method of its operation. The outward appearance of the complete vehicle is not suggestive of any unusual properties; it is well proportioned, rather narrow, as becomes it considering the nature of its lines; and with the sloping hood and dashboard radiator, it is decidedly pleasing. The sides of the forward com-

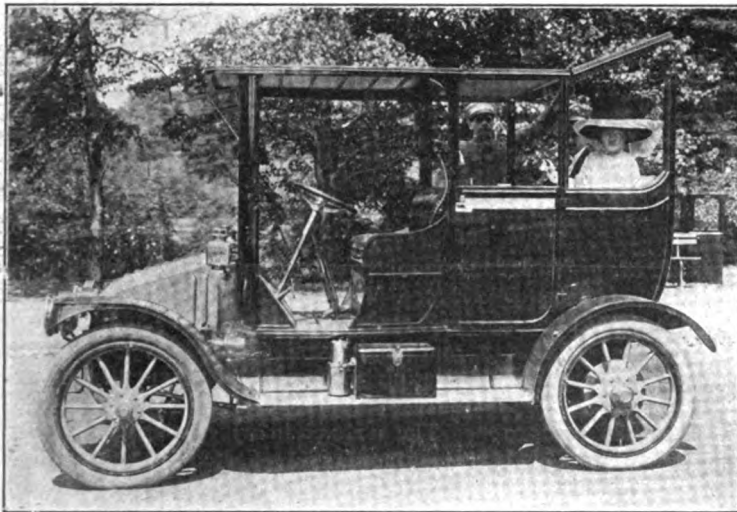


TWOMBLY QUICK CONVERTIBLE BODY FULLY ENCLOSED

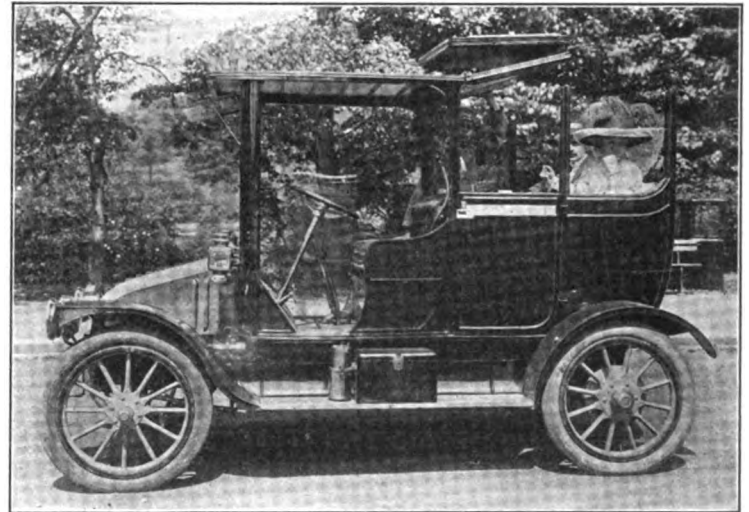
ation which was organized last June, is making active preparations to undertake the production of power plants and complete cars, paying particular attention to

principal features which are to distinguish the new cabs.

The most spectacular point about the car is its convertibility. At will it may be



SHOWING FIRST OPERATION IN FOLDING ROOF

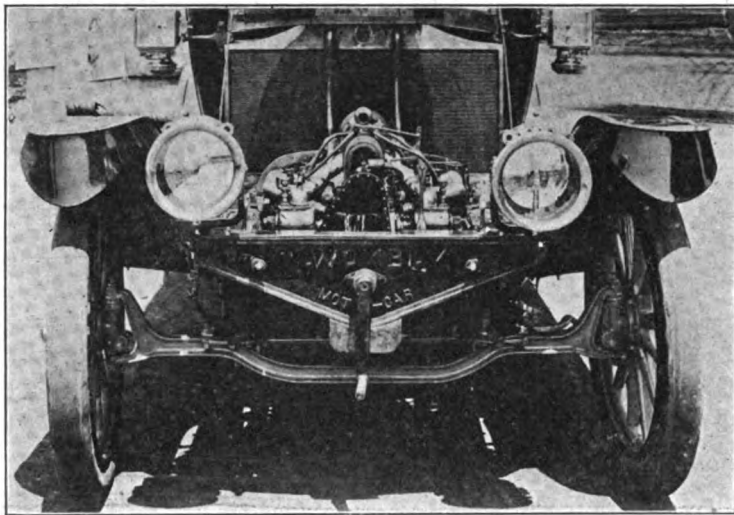


SECOND OPERATION IN TWOMBLY BODY CONVERSION

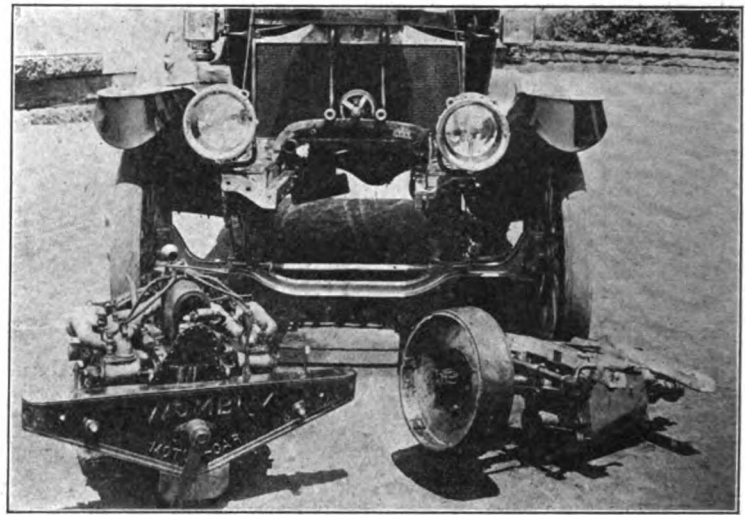
cabs of the taximeter variety. To this end a factory has been leased in Long Island City and the work of installing equipment begun. According to present plans, the new product will be ready for the market by next October.

used as a four-door double limousine, an ordinary limousine, an unenclosed canopy car, a landaulet with demi roof, or an open car with standing roof over the driver's seat. The four conversions may be made within an extraordinarily short space of

partment, carrying the doors and the drop windows, are secured to the body frame by cam locks at the top and by means of dowel pins at the bottom, which fit into sockets let into a ledge which runs outside the seat line. The removal or replacement:



TWOMBLY CAR SHOWING MOTOR IN POSITION



VIEW SHOWING POWER PLANT DISMOUNTED

of the front enclosure thus is a matter of seconds only.

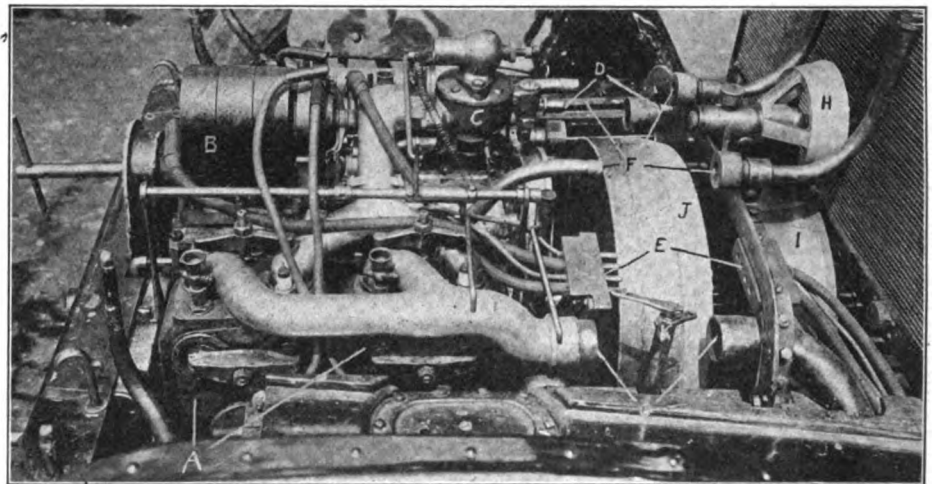
When fully enclosed, the rear compartment is water-tight, yet properly ventilated and heated by means of special devices. If required, the windows, of which there are two on either side, one in the front and one at the back, may be dropped into the casings, leaving the vehicle entirely open at the sides. The supports for the roof which remain are four in number, two being at the rear corners and two just back of the doors. The two uprights which form the casings for the door sashes are folded inward against the doors when the windows are dropped. The two posts at the back of the front seat, and the dash uprights are permanently fixed.

By releasing a pair of cam locks at the rear corners of the roof, one section may be folded over, leaving the rear quarter of the car open. At the same time the two rear corner posts fold down toward each other, their ends meeting in a dowel fastening as they reach the back of the seat, where they form an ornamental moulding. It will be observed that all this is not accomplished without a deal of ingenuity, the skill of the designer being revealed to a notable degree in the construction of the hinges for the rear corner posts. These are finished on the ball and socket principle, so that when collapsed they form a smoothly rounded corner. At the same time the stress is carried in such a way that there can be no abrasion of paint; while, when the posts are erect, the outer shell of the joint acts as a tenon to hold the upper section rigid.

By a similar process of folding, the forward section of the roof likewise may be disposed of and the supporting posts turned down out of sight. The rear portion of the vehicle then remains entirely open, having lines suggestive of torpedo construction, while the forward section, with its standing roof, stays undisturbed. In the construction of the body apt use has

been made of pressed steel and aluminum in framing and covering the lower section and also in building the folding uprights. The rear seat affords ample accommodation for two passengers, while a drop seat, facing to the rear, accommodates two more. In addition there is room for a fifth passenger alongside the driver. In accordance with the most generally ap-

By releasing two special lock nuts on the front board of the frame, the motor unit is released from the frame. It then may be slid forward on its supporting rollers, and lifted out of the chassis. Before drawing it out, however, it is necessary to release the gasoline coupling, which is done by giving a quarter-turn to a special breech-block union fitting, and to



ENGINE PARTLY REMOVED SHOWING AUTOMATIC COUPLINGS

proved town car practice, the driver's place is on the left, with the controls placed in the center of the foot board. In every other respect the controlling arrangements are of standard pattern.

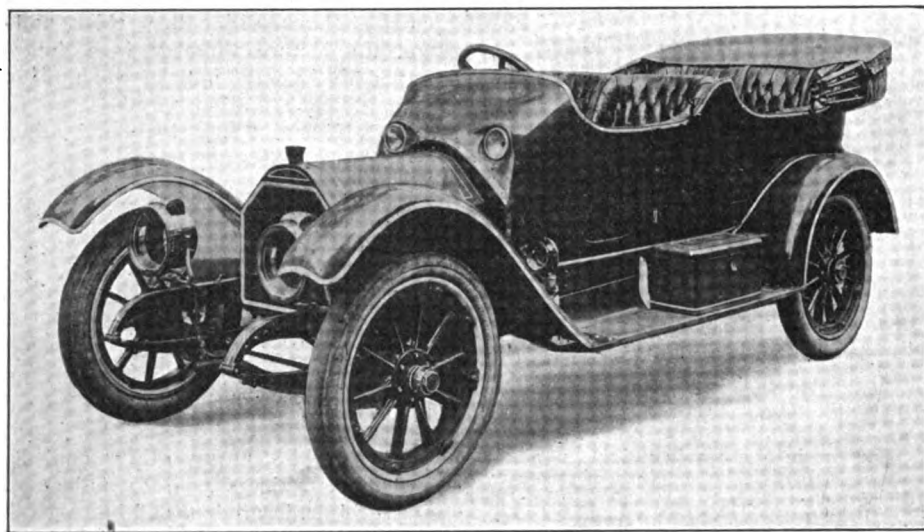
The demountable feature of the power plant, which is the one in which the producer is most interested just at present, is obtained by an application of the simple idea of rendering the two units, the motor and change gear, slidable on the sub frame. Save for the method of affecting the necessary connections for power transmission and for piping the engine, this scheme is very easily accomplished. Therefore it is the automatic coupling arrangements which comprise the essentially novel point in the system.

unhook the motor control connections; water, exhaust and electrical connections are automatically disconnected. The engine auxiliaries—carburettor, magneto, lubricating device—are permanently mounted on the motor.

The manner in which the uncoupling of the motor is effected automatically is shown by the accompanying picture. The location of the cylinders is indicated at A, and of the magneto and carburettor at B and C, respectively, while the gasolene connection is shown at D. By means of four plug contacts E, the necessary connections for the Bosch dual ignition system are broken when the motor is drawn forward, while the telescoping water and exhaust unions F and G are disconnected

from the corresponding pipes in a similar way.

To prevent leakage in the water line, special construction has been resorted to. The female ends of the unions are lined with rubber cups, specially moulded for the given size of pipe, and held in place by large knurled nuts, which are tightened by hand. To prevent overflow from the radiator outlet, an original form of valve has been devised, which closes automatically when the engine is moved from its normal position, but which is opened by a tappet carried by the motor as soon as the motor is returned to its proper place.



NEW "DOLPHIN" BODY ON 15-30 HORSEPOWER STEARNS

The fan drive is frictional from the fly wheel, the cone pulley H, which is spring-retained and self-adjusting, coming into contact with the fly wheel J as soon as the motor is in place. The clutch cone, I, carries a taper roller bearing on its forward end, which automatically engages a corresponding socket on the rear end of the crank shaft, thus aligning the driving system. The motor controls are regulated through the pillar K.

The change gear, which is of the selective, sliding pinion type, is drawn away from its position and returned without serious complication. Both the pedal and lever connections are effected automatically, and the drive to the propeller shaft is accomplished through a crab claw coupling, which permits flexibility in that connection as well as affording ready means for releasing the gearset upon occasion.

Under any other circumstances, the motor itself would come in for an unusual amount of attention. It is of the opposed type, with 5 by 5 inch cylinders, and takes the A. L. A. M. rating of 40 horsepower. In respect to the L-shaped cylinders, with valves placed on top, the optional use of two sets of plugs, and the transverse method of mounting in the chassis, there is nothing so very striking about it. Its size, however, is extraordinary, since its outer

dimensions are only 17 by 17 by 8 inches; while its weight is but 206 pounds, including the 60-pound fly wheel, or something like 5 pounds per horsepower.

The peculiarity of its construction lies

#### "Dolphin" Body the Latest Fancy.

Various fancies have been entertained in regard to the design of automobile bodies, and the introduction of the marine suggestion by no means is the novelty this year or last that it might be supposed. For example, there was that early classic, the sea-shell body, which graced the ingenious and

with two crank throws, besides eliminating the connecting rods, and reduces both the length and width of the engine. The opposing pistons are formed in a single piece, with a vertical guide slot between the heads. Made a close sliding fit in the guides is the outer race of a roller bearing, which is mounted on the crank throw, and takes the place of the ordinary "big end" bearing. Two of these double piston and roller bearing groups suffice for the four cylinders, forming an arrangement which Mr. Twombly is pleased to term the equivalent of a two-cylinder double-acting motor. That it is rather a stretch of definition to term it strictly a double acting motor, however, probably most engineers will agree, and even Mr. Twombly himself is understood to favor some more accurate appellation.

Gravity cooling circulation, automatic lubrication with filtered return to the pump well and interchangeable valves are features which are in line with present practice. The motor is said to develop more power than the standard rating calls for, and to be entirely satisfactory in point of flexibility. So far as could be judged from the brief demonstration on Monday, it runs smoothly and well.

#### Used a Syphon Fire Extinguisher.

Suggesting an important use to which those portable wine cellars that are designed to be carried on automobile running boards may be put, the experience of George Deiss, a resident of Patterson, N. J., reflects both promptitude and presence of mind. Deiss while driving along 16th avenue last week suddenly discovered smoke issuing from the bonnet of his car. Finding that the carburettor was on fire, he rushed to a neighboring store and bought a bottle of selder water, with which he succeeded in extinguishing the flames before serious damage was done to the car.

#### Proper Drainage Important for Garages.

It is by no means an idle suggestion to indicate the importance of arranging for proper drainage in laying down garage floors. It not infrequently happens, even with cement flooring which has been very carefully laid, that a certain amount of sagging will occur—just sufficient, in fact, to permit pools of water or oil to be formed. The effect of such accumulated moisture upon the tires of cars left standing in it is exceedingly destructive.

#### How to Loosen Encrusted Screws.

Accumulator terminals which are badly corroded can be loosened by the expedient of gripping them firmly with a pair of hot pliers until the screws are pretty well heated. The effect will be to expand the metal and at the same time to assist in loosening the encrustation which binds them.

in the use of the principle of the Scotch yoke in place of the ordinary connecting rod arrangement. This system does away

## JERSEY MOTORISTS "RESOLUTE"

Reciprocity the Watchword—Frelinghuysen  
is Worried—Commissioner Smith  
Talks to A. C. A. Members.

"Joe" Frelinghuysen, the New York insurance man, whose desire to become governor of New Jersey has become acute and full blown, isn't feeling thoroughly happy these days. It is reported that Joe carried his desire, neatly wrapped in tinfoil, to the Republican State Committee of New Jersey and that it immediately curled up at the edges when exposed to view. The astute committeemen are said to have told their ambitious occasional fellow citizen that there were too many yellow anti-automobile streaks in his tinfoil package to win votes and that it were better that he lie low and remain content with his senatorial seat.

At any rate the committee last week adopted a resolution recommending that the state convention place the republican party on record as favoring the enactment by the next legislature of an automobile law establishing reciprocal relations with other states.

This in itself was a cruel slap at the New York insurance man, who occasionally spends a night in New Jersey. Frelinghuysen did not accept the decision philosophically. He wants the governorship and wants it badly, and despite the slap on the wrist he is still gunning for the nomination and apparently will seek to arouse more anti-automobile sentiment in his effort to get it. As the originator of "hold-up" automobile legislation, he has decided to remain "true to Poll." He is opposed to the establishment of reciprocal relations. In making his bid for the Republican nomination, he says, among other things:

"Experience shows that revenues now derived from automobiles are not sufficient to repair the damage caused by them to our roads. Should we relieve residents of other states from the payment of any license our revenues would decrease, the use of our roads would increase, and as a necessary result, unless the automobilists of this state were called upon to pay a higher license, or unless the people at large were called upon to pay more for road repair than they do now, our roads would deteriorate and they would soon lose the reputation which they now enjoy. No change should be made until the people at large show a willingness to pay more than they now do for the maintenance of the roads and until they express a desire to grant to automobile owners of other states the free use of our roads."

Meanwhile a lot of genuine New Jersey-men who vainly have expressed such a desire are prepared to deal with Frelinghuysen

and his kind, of whom they have been made victims. The Associated Automobile Clubs are preparing to make good their promise to "go into politics" and to support their friends and undo their enemies. The board of trustees of the New Jersey Automobile and Motor Club, of Newark, has fired the first gun of the campaign by adopting the following resolution defining the attitude and intentions of the automobilists of the state:

Whereas, The New Jersey Automobile and Motor Club has repeatedly placed itself on record as favoring more liberal automobile laws; and

Whereas, The existing state known as the Frelinghuysen law, with its amendments, has caused our neighboring states to pass retaliatory measures; and

Whereas, The business interests of the state are being affected, tourists of other states are being barred from entering our borders until they have secured a license for which compensation is exacted; and

Whereas, Because of this proviso our own citizens are required to take out a license and pay the full resident license fees at great cost and inconvenience before they can enter the borders of some of our neighboring states; and

Whereas, Approximately \$400,000 of the reported \$500,000 to be expended by this state in the repair of improved roads during this year is received from the license fees from motorists; therefore be it

Resolved, That this club shall in order to protect the good name of our state use its influence in the coming election to elect those men to office regardless of party who shall pledge themselves to the unqualified support of the motoring interests in securing a "square deal" at the next session of the legislature.

Resolved, That this club shall demand the following amendments:

1. Reciprocity, namely that a reasonable use of our highways for a limited period of time be given to the residents of the neighboring states without expense to them and without requiring them to take out a license, provided those States give reciprocal privileges and that there are no restrictions in regard to non-resident licenses for owners or chauffeurs, lights, speed and special regulations to conflict with New Jersey.

2. That the law which was recently passed requiring all vehicles to carry lights shall be re-enacted and a minimum penalty fixed, said fines to be turned over to the state treasurer, the money so raised to be spent on the repair of the improved state highways, but not upon the building of new highways.

3. That the horsepower of cars for license purposes shall be rated A. L. A. M. rating and not upon the maker's rating.

4. That the twelve and fifteen miles per hour clauses in the present law, which permit prejudiced officials to use their office for the persecution of motorists, be rescinded.

5. That in consideration of the large sum received from license fees by the state that automobiles be exempted from further taxation and that the fees so collected shall be paid in lieu of any and all taxes.

In order to help "Joe" out in his predicament, J. R. Smith, Commissioner of Motor Vehicles, came over to New York to tell the unbelieving Thomases of the Automobile Club of America how kind and generous New Jersey always has been to the

motorist, how lenient it is when he exceeds the speed limit, how the odious speed traps have been abolished, and how happy and satisfied the motorists of other states ought to be to be permitted to enjoy to the full the benefits of Frelinghuysenism. Strange to say his address did not rouse any noticeable enthusiasm, because he only reiterated the old well-worn statements of road cost and expenses. Among the fifteen members present were a few dyed-in-the-wool Jerseyites who applauded everything he said, but there were others (and they outnumbered the Frelinghuysen-Smith-Morgan faction), who gave Mr. Smith several exceedingly hard nuts to crack. Personalities flew thick and fast, and the lecture threatened to degenerate into a lively word-battle, when the chairman called attention to the fact that it was half past ten o'clock and adjourned the meeting.

### High Speed Not Always Imprudent.

Judge Carl Foster, of Bridgeport, Conn., has created a small furor in his part of New England by declaring that, notwithstanding the letter of the law which states that a speed in excess of 25 miles per hour is prima facie evidence of recklessness, under certain conditions a speed of 35 miles an hour may be called "careful and prudent" driving, while under other conditions a speed of less than 30 miles may be regarded as "reckless, imprudent and improper." This decision is in line with the claim made by the no speed limit advocates, but it has, nevertheless, aroused no little indignation.

The judge's decision was rendered in the case of W. F. Brainard, of Glen Ridge, N.Y., who was arrested for driving at the rate of 35 miles an hour along Fairfield avenue, Bridgeport. At the hearing it was proven that there were no pedestrians on the sidewalk or in the roadway at the time of the drive, that no trolley cars were in sight, and that the only traffic consisted in two automobiles which were proceeding in the same direction as his own car. These two cars, being "test" cars, were driven at the rate of 25 miles per hour, and when Brainard passed these cars he was arrested. Judge Foster decided that although the legal speed limit had been exceeded, the absence of traffic and the clear, straight road rendered a higher speed excusable.

A few days later when another motorist, Arthur J. Moulton, of New York, was arrested by the same policeman on the same avenue for driving at the rate of 30 miles an hour, Judge Foster fined him \$15 and costs, declaring that in this case there were pedestrians on the street and considerable traffic was going on, and that therefore the accused was guilty of driving which was "reckless, unreasonable and improper." The judge qualified his decision by a lengthy opinion on the speed law, which is being kept in the court for reference in future speed cases.



**PULLMAN TO CONTINUE ITS TRIO**

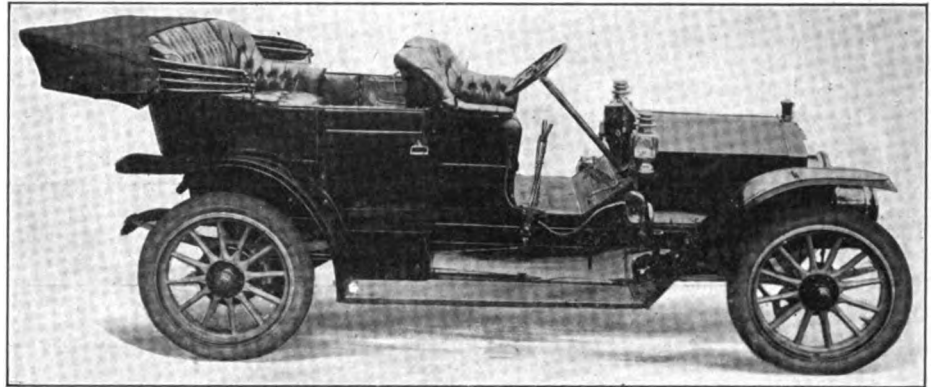
**New Models Adhere Closely to Previous Practice—Slight Changes for "K" and "M" Gets New Equipment.**

For several years the Pullman line, which is made by the Pullman Motor Car Co., of York, Pa., has been distinguished by an earnest clinging to certain fixed principles of design. Remaining but little altered, the same series of three models is to be continued through another year of production, according to an announcement which just has been made. And it almost goes without saying, that the three chassis correspond closely in general style of construction as they have in the past.

The three new models, "K," "O" and "M," as they are designated, will be distinguished by the suffixed "II" placed after

housing. The changing of the shape of the bottom pans of the motor, the adoption of new style foot boards, and the raising of

leather faced cone clutch with spring inserts, instead of cork inserts, which formerly were employed. It is built as a



PULLMAN MODEL "K-II" 35 HORSEPOWER TOURING CAR

the headlight brackets, are other slight alterations.

Model "O," which was exhibited for the

touring or small tonneau car, and also as a two or three passenger runabout.

Save in the matter of wheel base, where an increase has been made from 124 to 127 inches, model "M" will be much the same in form as it is at present. The new series "M" car will not be ready for delivery for a few weeks, and in the meantime its design has been overhauled and opportunity found for a few minor alterations. These changes, coupled with improvements in finish, it is intimated, may cause its price to be advanced somewhat. In general, however, it will still conform to the Pullman standards. Touring, small tonneau and limousine styles will be put forth.

The leading characteristic of the Pullman motors is the method of constructing the cylinders. These are of T-head form, meaning that the valves, which are interchangeable, are placed on opposite sides and driven from independent cam shafts. The original feature about them, however, is the use of open-ended water jackets with abutting flanges, the result being that the water jackets are rendered practically continuous from end to end of the motor, while the entire cylinder group is given

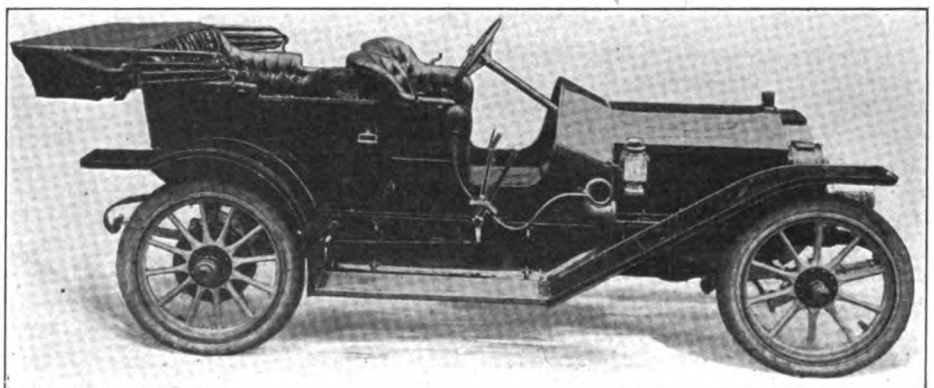


MODEL "M-II" PULLMAN 50 HORSEPOWER TOURING CAR

the distinguishing letters. The first named car is of 35 horsepower rating, the second of 30 and the third of 50. Four cylinder motors of original delineation and build, selective sliding change gears, shaft drive and other common features will be retained. Of sundry changes which have been made, none is of the sort which may be termed radical, while the alterations affect the model "K" more especially than either of the others.

The standard form for the car in question is the five passenger touring arrangement. The latest specifications call for a 2-inch increase in wheel base, increasing the distance between treads from 112 to 114 inches. This affords more leg room in front and increases the easy riding qualities of the forward part of the car. An alteration in the shape of the doors to give a more nearly straight line effect is a more apparent change, as is a redesign of the steering column, which now has a larger brass

first time during the last show season, remains practically unchanged. It may be noted in passing that it is now quoted with



PULLMAN MODEL "O-II" 30 HORSEPOWER TOURING CAR

109-inch wheel base, which is a trifle more than the original specifications called for, and that it is now specified as having a

much the same rigidity which obtains with the block method of casting. This arrangement is employed on the "K" and "M"



cars, with individually cast cylinders. On the model "O," however, the cylinders are cast in pairs.

Liberal bearing surfaces, enclosed gears, constant level pump lubrication, and magneto ignition are standard features. On the model "O" car, the Bosch dual ignition system is employed, but the other two engines have double ignition with Bosch magneto, dry cells, coils and distributor. The cylinder dimensions of the three models, "K," "O" and "M," are respectively  $4\frac{1}{2}$  by  $4\frac{3}{4}$ , 4-32 by 5, and  $5\frac{1}{4}$  by 6.

Timken full floating rear axles are used on the 35 and 50 horsepower chassis, and semi-elliptic front and three-quarter elliptic rear springs on the 30 and 50 horsepower models. Double acting hub brakes are common to all three. The two smaller cars have three-speed change gears, and the largest of the three one giving four speeds, with a "geared up" fourth. The tire equipments for the three, in the order given above, are as follows: 34 by 4, 34 by  $3\frac{1}{2}$ , 36 by 4 by  $4\frac{1}{2}$ . The equipment for all models is uniform, namely, tools, jack, pump, repair kit, gas lamps, generator, oil lamps and horn. In addition the 50 horsepower model is sold with a top included in the standard equipment.

#### "Under Three Flags" Car in Mexico City.

The long run of the Flanders "Under Three Flags" car, which left Quebec June 5, ended under the shadow of Popocatepetl in Mexico City on August 3d. The car pulled into the city covered with mud after a fast day's run, the home stretch of which comprised the first good roads which have been found within the republic. A somewhat dramatic feature of the finish was the fact that the car was piloted to the finish by W. J. Lane, the regular driver, who, in spite of severe illness which has afflicted him all through Mexico, has insisted against the advice of the physicians, on accompanying the trip to its end. Lane traveled ahead of the car through the greater part of Mexico, but was assisted to the wheel this morning and remained there.

A big parade of E-M-F "30's," Flanders "20's" and other cars met the "Under Three Flags" outfit near the city limits and the triumphal entry was one long to be remembered. A large and popular demonstration occurred at the St. Charles IV monument, which was passed en route to the garage of Mohler & DeGress. The Flanders is the first car to enter Mexico from Laredo and the first to traverse a large share of territory which was traveled for there to the end of the trip. The total distance for the trip was 4,127 miles, but a little longer than the shortest by rail between the two points.

#### Lozier Adopts Long Stroke Motor.

Two styles of chassis will be produced by the Lozier Motor Co., New York City, during the coming production season, one

being four- and the other six-cylinder construction. In general, the massive and original design of the models will be retained. But sundry alterations of a distinctive nature have been made. Among them are the adoption of the long stroke form of cylinder.

The dimensions of model "51," the new six, are  $4\frac{5}{8}$  by  $5\frac{1}{2}$  inches, and of model

#### Huge "Nobby Tread" Tire in Detroit.

So big that a man can stand upright in its large diameter, a monster Morgan & Wright nobby tread tire has been added to Detroit's many automobile wonders. The



tire was produced at the Morgan & Wright factory in Detroit in time for public display during the recent Elk's convention in that city, and by reason of its huge size and unusual appearance, as shown in the accompanying picture, attracted no little attention from the visitors, a good proportion of whom were motorists. Being on so large a scale, the form and placing of the rubber tread knobs is easily seen at a glance, indicating the character of the proportional knobs on the nobby tread tires of normal size.

"46," which is the four-cylinder car,  $5\frac{3}{8}$  by 6 inches. The T-head, paired cylinder construction, automatic lubrication, complete double ignition, and annular ball bearing crank and cam shaft mountings will be retained. The multiple disc clutch, four speed gearset, enclosed in a one-piece gear box, shaft drive and full floating axle construction is retained, but an alteration has been made in the method of coupling the radius rods.

Special provision for adjusting the brakes, semi-elliptical front springs and three-quarter platform rear ones, a compression releasing device working on the exhaust side of the motor, and an improvement in

the construction of the starting crank, and adjustable cup and cone front wheel bearings are features given special prominence in the new models.

As the chassis are of the same size for both models, the full line of bodies applies to both models. The "Lakewood" model, so-called, has a new form of combined side door and chauffeur's seat, and other improvements have been made. The equipment is complete save for tops and wind shields, and includes specially designed lamps, with oil-electric combinations for the dash and rear members.

#### "Green" Operator Causes Big Fire.

Caused by the explosion of a vulcanizing machine, the big garage at Easthampton, L. I., owned and managed by W. Halsey, was destroyed by fire early Wednesday morning, August 10th. Damage said to exceed \$40,000 was caused. Twelve automobiles were burned, the adjoining general store ruined, and one man burned so severely that he will lose his life. P. Collins, operator of the vulcanizing machine, was inexperienced, and due to his clumsy handling of the machine, the latter exploded, setting fire to his clothes. A large touring car with brakes locked blocked the entrance to the garage, and before the machine could be wheeled out of the way the flames had gained such headway that the rescuers had to flee for their lives. Part of the loss is covered by insurance.

#### Exploding Gasolene Destroys Garage.

Flames destroyed the garage of John Burdick, at Troy, N. Y., last Saturday night, causing a damage of \$25,000, only \$15,000 of which is covered by insurance. The origin of the fire was unusual. Repairing one of his cars, Burdick's hand slipped and the wrench he held struck the gasolene tank and opened a small leak. As there was but a small amount of gasolene in the tank, no attention was paid to the leak. A small kerosene lamp, standing in the rear of the garage, where repairs were made, ignited the fumes of gasolene when they had filled the whole lower half of the building and caused an explosion. Five new cars were totally destroyed, while the entire building was burned to the ground.

#### To Prevent Short Circuiting of Ignition.

When ignition accumulators of the celluloid cased type are employed, it is a good plan to take advantage of their transparency once in a while by holding them to the light in order to observe whether any of the paste has begun to loosen from the plates or whether the plates have buckled. If this proves to be the case, the affected cells should be opened and new plates put in, or the offending bits of paste removed, if renewal is not practicable at the time, as otherwise there is strong likelihood of short circuits occurring which will be exceedingly destructive.

**BUILT TO KEEP OUT THE DUST**

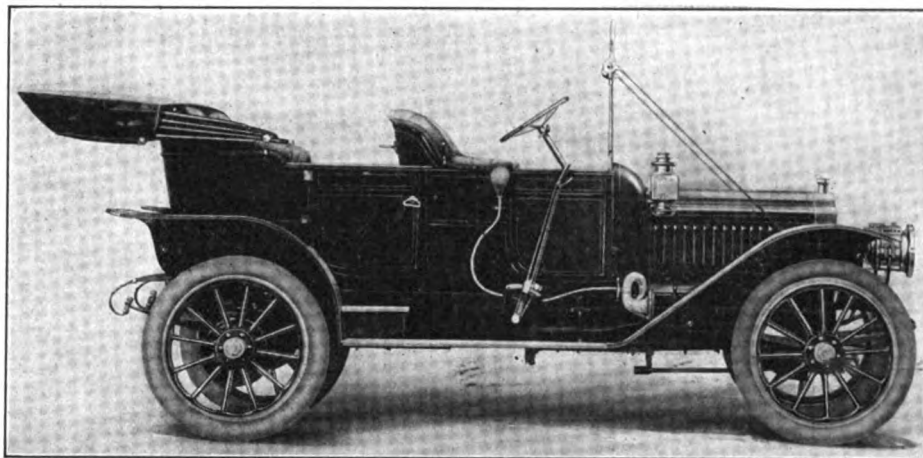
**Protective Feature of New Maxwell Models  
Due to Torpedo Pattern—Line Varied  
and Well Equipped.**

It has been announced that in producing its new line of cars the Maxwell-Briscoe Motor Co., of Tarrytown, N. Y., will put into the market four different chassis, including one of 25 horsepower rating, which is entirely new, and an increased array of body mountings. The new bodies reflect the spirit of the times in introducing the torpedo form and the straight line effects which, because of their real worth, are growing to be better appreciated each year.

The accompanying illustrations supplement the brief outline of prices and specifications recently printed in these columns and afford an indication of the fact that the new Maxwell line is to be rather strikingly "à la mode," so to speak. The most "skittish-looking" member of the line is

drive, 110 inch wheel base, 34 by 4 inch quick detachable tires, semi-elliptical front of the 30 horsepower model, is a close-coupled effect with four doors, skuttle dash

ignition, three speed sliding change gear, 104 inch wheel base and 32 by 3¼ inch "Q. D." tires. As becomes its smaller size, it is more compact in appearance than the



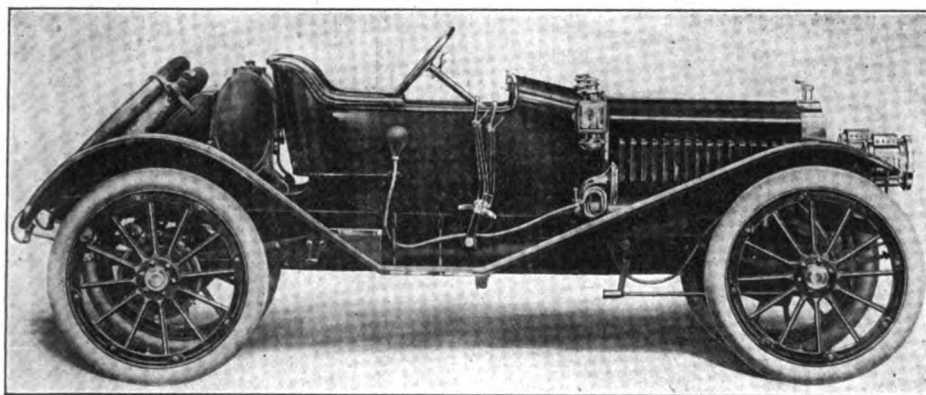
MAXWELL MODEL "EA" 30 HORSEPOWER TOURING CAR

and three-quarter rear springs, are other leading specifications.

Model "GA," which is another version

"GA" car, but with its concave dash, close seating and shapely lines, it is none the less pleasing and practical in appearance.

Models "S-II," "G-II" and "Q-3-II," the latter being the standard 22 horsepower model, are produced in the more familiar style of touring body, without front doors, but otherwise with the power plant and accessory equipment which is included with the remainder of the line. The model "Q-II" and the little "AB" car are made as two passenger runabouts. The latter, it should be added, is the two-cylinder, 14 horsepower "baby" member of the line. Despite its reduced size and power, however, its standard equipment, including dual ignition, is the same as that which is specified for each of the larger machines.



MAXWELL "GA" TWO PASSENGER TORPEDO ROADSTER

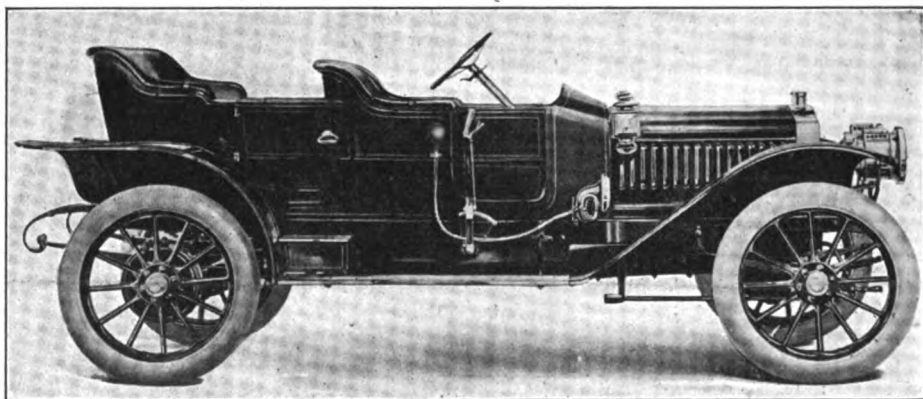
the new "GA" roadster, which is mounted on the 30 horsepower chassis subject to certain appropriate and obvious alterations of the control mechanism. As the picture shows, the car is of the racing roadster type, with oval fuel tank back of the single seat and storage trunk and tire rack in the extreme rear. The body is of the single-seat torpedo pattern, with long skuttle dash extension, flat surfaces and metallic construction.

Another and more conservative member of the 30 horsepower group is the model "EA," also illustrated herewith, which is graced with front doors, a concave dash and straight line moulding effects. This is a five passenger machine, which is shown with the top and wind shield, which form its complete equipment, although these two items are listed as extras. The motor of this and the model previously mentioned is of the 4¼ inch "square" dimensions and is equipped with dual ignition, the magneto being a part of the regular equipment. Three-speed sliding change gear, shaft

and other up-to-the-minute features. It is a very neat little car with a decidedly utilitarian aspect. The same applies in a gen-

#### **New Departure Builds Six Cylinder Car.**

Six cylinders are to be a feature of a new car which the New Departure Mfg. Co., of Bristol, Conn., is finishing for the personal use of Hon. Albert F. Rockwell,



MAXWELL MODEL "GA" 30 HORSEPOWER CLOSE-COUPLED

eral way to the new model "I" touring car, which is the standard 25 horsepower offering. This machine is equipped with a four-cylinder, 4 by 4 inch motor, with dual

the president of the company. The machine is to be of high horsepower, and may serve subsequently as prototype for one of the company's models.

**READY FOR COMMERCIAL TEST**

**Philadelphia-Atlantic City Truck Entries  
Number Sixty-Five—Ton-mile Cost of  
Trip to Determine the Winner.**

If no faint hearts develop between this writing and Friday morning of this week, more than three score entrants will undertake the two days' reliability contest for commercial vehicles, which is scheduled to

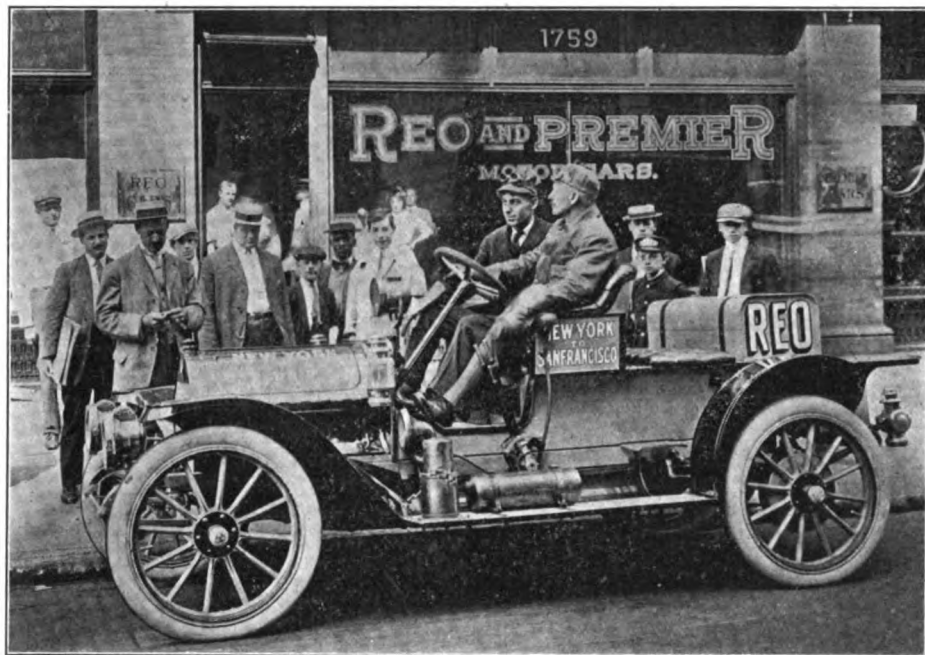
**Manufacturers' Division.**

Class A (1½ tons capacity and less).  
Entrant and car.

Randolph Motor Car Co., Randolph.  
Commercial Motor Car Co., Chase.

**Will Try for Transcontinental Record.**

With the avowed intention of beating his own previous record of 15 days 2 hours 12 minutes for the trip from New York to San Francisco, L. L. Whitman, in a Reo



WHITMAN AND HIS REO READY FOR LONG TEST

start from Philadelphia on the course to Atlantic City and return at half past eight o'clock. The official list of entries includes 65 names, and covers 31 different makes of car. Twenty-three of the entries have been made by the manufacturers or their agents.

By a simple process of division, the Philadelphia newspaper, which is promoting the contest, proposes to discover exactly how much it costs, per ton mile, to move freight over the highway to Atlantic City and back by automobile. In the case of the gasoline machines, the total fuel and oil consumption will be used to ascertain the cost, figuring gasoline at 16 cents a gallon and oil at 50 cents a gallon. Electrics will be charged according to energy consumption on a basis of 4 cents per kilowatt. In the case of each machine, this gross cost of the trip will be divided by the net load weight of the vehicle to determine the winning score.

Observers will be carried, and the rules relating to the conduct of the competing vehicles, the checking at the single control, which is at Hammonton, and the weighing-in and scoring formalities, follow the general lines of the standard endurance rules. The complete list of entrants follows:

"30" started from the New York branch of R. M. Owen & Co., at 12:01 Monday morning, August 8th. He was accompanied by E. I. Hammond, who is to take turns with Whitman in piloting the car. The present tryout for a new record is to be a night and day continuous run, the two drivers alternating at the wheel. Three mechanics form the remainder of the party. Whitman has made the same trip in 1903, 1904 and 1906, the run in the last named year also being a night and day trip, with five men from the factory assisting him in driving the car.

Whitman reached Buffalo Monday evening, and, following the Erie, Cleveland, South Bend route, entered Clinton, Iowa, at 10:55 a. m. Wednesday, making the run from New York (1,196 miles) in less than 59 hours. He is 12 hours ahead of the 11 days schedule laid out for the trip.

Commercial Motor Car Co., Chase.  
Commercial Motor Car Co., Chase.  
Franklin Motor Car Co., Franklin.  
Martin Carriage Works, Martin.  
Martin Carriage Works, Martin.  
Torbenson Motor Car Co., Torbenson.  
International Harvester Co., I. H. C.  
International Harvester Co., I. H. C.  
Buick M. C. Co., Buick.

Buick M. C. Co., Buick.  
Finnesey and Kobber, Atterbury.  
Rapid Motor Vehicle Co., Rapid.  
Hart-Kraft Motor Truck Co., Hart-Kraft.

Class B (between 3001 and 5999 pounds).

Garford Motor Truck Works, Garford.  
Edgar W. Hawley, Grabowsky.

Class C (three tons and above).

Kelly Motor Truck Co., Frayer-Miller.  
Schleicher Motor Vehicle Co., Schleicher.  
Standard Gas and Elec. Power Co., Standard Gas-electric.  
A. T. Gardiner, Gramm.  
Benz Import Co. of America, Gaggenau.  
Packers Motor Truck Co., Packers.

**Private Owners' Division.**

Class A (1½ tons capacity and less).

Strawbridge & Clothier, Autocar.  
John Wanamaker, Autocar.  
Bailey, Banks & Biddle, Autocar.  
Bailey, Banks & Biddle, Autocar.  
Bailey, Banks & Biddle, Stoddard-Dayton.  
Lindsay Brothers, Inc., Autocar.  
Consolidated Rubber Tire Co., Autocar.  
Coca Cola Company, Maxwell.  
Freihofer Vienna Baking Co., Chase.  
Cluett, Peabody & Co., Autocar.  
Cluett, Peabody & Co., Autocar.  
E. Bradford Clarke, Autocar.  
Fritz & La Rue, Autocar.  
Wright, Tyndale & Van Roden, Rowan.  
Michael Del Collo, Autocar.  
Eshelman & Craig, Autocar.  
Gurhse Butter Co., Autocar.  
Gurhse Butter Co., Autocar.  
J. E. Caldwell & Co., Autocar.  
A. F. Bornot Brothers Co., Autocar.  
A. F. Bornot Brothers Co., Renault.  
Theo. F. Siefert, Autocar.  
J. S. Ivins Son, Autocar.  
Kellogg Toasted Corn Flake Co., Cartercar.

Class B (3001 to 5999 pounds).

J. B. Van Sciver Co., Reliance.  
Suburban Auto Express Co., Commercial.

Class C (three tons and above).

Shane Brothers & Wilson, Mack.  
Baldwin Locomotive Works, Saurer.  
Baldwin Locomotive Works, Saurer.  
Baldwin Locomotive Works, Saurer.  
John Wanamaker, Packard.  
J. B. Van Sciver Co., Reliance.  
Gimbel Brothers, Alco.  
Gimbel Brothers, Alco.  
Fleck Brothers, Frayer-Miller.

**Electric Vehicle Division.**

Class A (1½ tons capacity and less).

John Wanamaker, Commercial.  
Bergdoll Brewing Co., Commercial.

Class B (3001 to 5999 pounds).

Bergdoll Brewing Co., General.  
John Wanamaker, Commercial.  
American Brewing Co., Commercial.

Class C (three tons and above).

American Brewing Co., Commercial.

**Marmon Retires from Track Racing.**

The Marmon team, Ray Harroun and Joe Dawson, will be seen no more in track competition this season and perhaps never again. The men will apply themselves solely to road racing. Nordyke and Marmon's retirement from track racing is due not particularly to opposition to that form of sport but to the lack of results, which are almost wholly of a local nature and rarely of national value.

## PROVIDING FOR THE SPARES

Engineer Explains How Tools and Parts Should be Carried on the Car—Demountable Rim Holders Described.

That automobile manufacturers well might devote some little thought and effort to the contriving of suitable methods of stowage for the spare parts, tools and supplies that the average motorist feels impelled to carry in his car at all times, was the natural inference to be drawn from the recent presentation of the subject be-

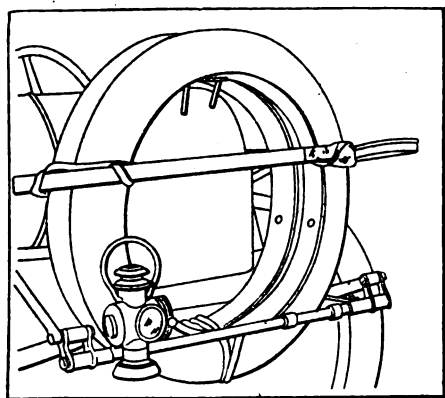


Fig. 1

fore the Society of Automobile Engineers, by H. H. Brown. Though the carrying of reserve supplies of gasoline and oil may be desirable, their transportation does not, in general, present so much of a problem

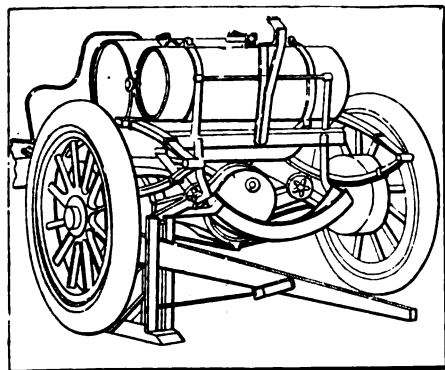


Fig. 2

as that involved in caring for tools and extra tires. To this portion of the subject Mr. Brown paid especial attention.

"For carrying tools the most satisfactory method, when all classes of cars are considered, is in a tool box on the running board," he remarked. "A box formed under the seat is, from many viewpoints, an equally desirable place; but in a touring car which employs gravity feed this position is precluded, as it is desirable not to curtail the dimensions of the gasoline tank in order that the distances that one can travel on a filling of gasoline should be as large as possible.

The back seat space may be made available for carrying tools and supplies without inconvenience to the rear seat occupants by means of an outside, side or rear door. However, this method has the drawback that things are much more liable to get lost, owing to either theft or leaving the door insecurely fastened.

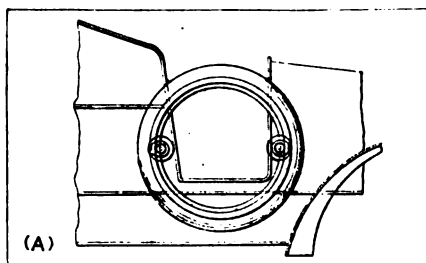


Fig. 3A

"As regards the ways of carrying the tools themselves, wherever they may be located, perhaps one of the best is that method in which a tray (or trays) having depressions for each individual tool is employed. An experienced driver or mechanic knows in advance pretty nearly what tools are required for a particular job. With the tray system no time is lost looking for them. Then, again, when the job is done, a glance will show whether any tool which may have been left by the roadside is missing, and the same glance will tell by the shape of the depression what tool it is that is missing. The only thing that can be said against this method is that it wastes considerable room and is, perhaps, somewhat expensive. Another method is the provision of a roll leather kit, with places for each tool. This method has the advantage that all tools can be carried to the vicinity of the job in question, and that a much smaller space is occupied by the tools as a whole. However, much more time will be occupied in getting out and

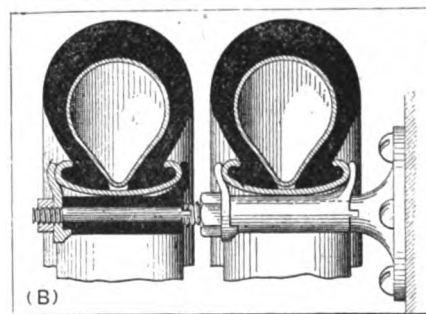


Fig. 3B

putting away the tools, which are much more likely to get lost than in the former method.

"One point seems to have been given very little thought by the makers: the methods of carrying spark plugs. Many plug makers provide secure mailing cases. As long as a plug is kept in one of these receptacles it matters little where or how it is carried. These receptacles, however,

are bound to get lost or misplaced. A scheme the writer would suggest is that a wooden or metal block, threaded for the reception of the plugs, be secured to some part of the machine, in the interior of the tool box, or even under the bonnet. For instance, there might be provided on each cylinder a clip, into which a spark plug could be screwed. This would then act at the same time as a holder, in case one wished to test the spare plug or to test

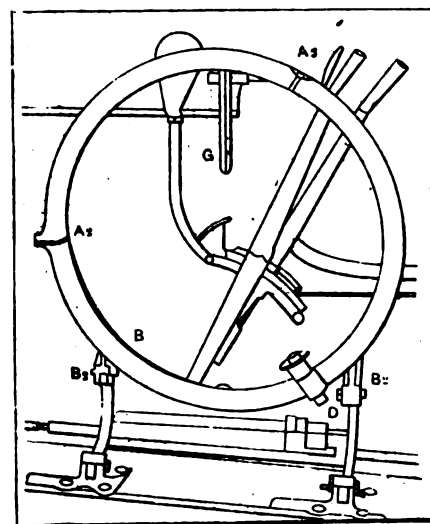


Fig. 4

the plug in the cylinder by the method of 'parallel gaps.'

"For all classes of cars the most convenient place to carry the extra inner tubes is probably the tool box on the running board. If some of the tools and supplies

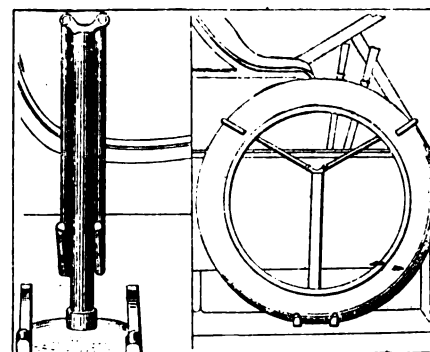


Fig. 5

less likely to be used are arranged for in other places than the running board box, then room can be made for spare tubes in the tool box without greatly increasing its size, if at all. In the case of a town car, used as such, even with gravity feed gasoline system, the amount of gasoline needed is so limited as to allow of ample storage space for all tire tools and spare tubes under the front seat. The tire trunk is also a good solution of the spare tube storage space problem. . . .

"There is one point which has been given considerable attention on racing cars, and has been entirely neglected on touring



cars; the manner of carrying demountable rims. On most cars the irons used to support and carry these rims are nothing but overgrown tire irons, to which the rims are generally secured by three or even more straps, which must be buckled and unbuckled each time that a tire change is made. Aside from manipulation, most of the ordinary tire carriers are bad from other points of view. It is in many instances necessary to hold the tires in place while tightening the straps, necessitating the help of a second person, or the use of one's knee or foot, with considerable chance of soiled clothes. Then, again, straps are often wholly depended on for support; and straps tend to stretch and allow the rims and tires to sway until in time the fabric of the tires becomes chafed and worn.

"On racing cars, great ingenuity has been displayed in methods of carrying spare rims, many times reflecting the individuality of the respective drivers. For instance, on the Alco, driven by Grant in the last Vanderbilt Cup Race, two tires were carried in the rear in a sort of frame or basket, each within a separate compartment of the frame (Fig. 1). This frame was arranged so that no straps were needed, a tire when inflated fitting its compartment snugly. A damaged tire would not fit snugly, and probably might chafe considerably, which, of course, would be of small moment on a racing car. While this method of carrying tires is almost ideal from the racing standpoint, it is doubtful if, all things considered, it would be a good one for regular pleasure conditions, from either the standpoint of beauty or utility.

"A rather good method was employed on some of the Marmon cars; in this case one tire only being carried. A sort of trough being bent to the same radius as the tire served as a support; the upper part of the tire, resting in a shallow, Y-shaped piece, and being held securely therein by a single strap (Fig. 2). This form of carrier has the advantages that it serves equally well without movement an inflated or deflated tire, and requires little time for strapping and unstrapping, and does not require so much lifting of the tire as the basket type.

"The writer saw recently a slightly modified form of the trough holder applied to a car fitted with a limousine body, the trough being sunk below the running board. A novel feature on this car was that while two tires were carried, they were carried on opposite sides of the machine. The symmetrical effect was quite pleasing, and, owing to the body design, neither front nor rear entrances were obstructed.

"On the Buick racers last year a steel strip was bent to the arc of a circle and supported at the rear of the car, the convex side up. Crosswise of this were strips bent up at either end. Thus a section of skeleton channel rim served as a support for the tire rim. A single strap served to hold the spare rim and tire in place.

"Very little seems to have been done in this country toward the design of a carrier supporting the spares by the rim, although at least two patents have been granted on carriers which use this method (Figs. 3A and 3B—McMurtry patent). The great advantage of this method lies in the fact that chafing of the tire is entirely eliminated. Figure 4 shows a device of this type marketed by the English Dunlop Company. This device will also serve as a holder during any tire manipulation, such as changing tubes, shoes, etc. It is so arranged that the tire and rim can be turned bodily on the holder, as though in place on a

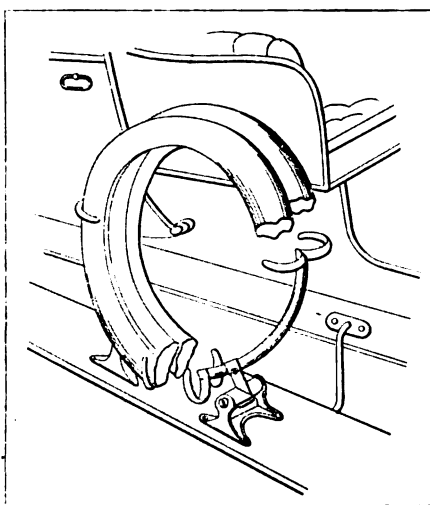


Fig. 6

wheel. All the details of this device are well worked out.

"Two examples of what may be called automatic or semi-automatic demountable rim carriers are given. Figure 5 shows the G. P. M., in which two hooked arms are pulled down on to the tire by a spring concealed in an upright column. The lower part of the tire rests in a sort of curved base. In removing the tire it is only necessary to lift it against the force of the spring, at the same time moving the lower part outwardly. When the holder is not in use the arms fold down and the device is comparatively inconspicuous.

"Figure 6 shows the Rotax, another English device, in which the tire is retained in position solely by its weight. The action will be clear from the cut.

"Designers and manufacturers should fully realize the desirability of a demountable-rim holder that will carry the spare rim securely and admit of ready accessibility. . . . Everything indicates that a good, satisfactory solution of this problem can be arrived at in a variety of ways; in fact, many of the designs successfully tried out on racing cars could be applied to pleasure cars with little or no modification."

#### Adjusting Bearings of Two-Cycle Engines.

Motorists who drive cars equipped with two-cycle engines should pay particular at-

tention to the condition of the crank shaft bearings. For the proper working of the engine it is absolutely essential that the crank case compression be uniform in each crank compartment of the case. Therefore whenever the bearings are being overhauled or the lower part of the case removed for any purpose, it is necessary to make sure that the bearing adjustment is uniform and as close as is possible to secure without endangering the proper working of the bearing.

#### Fights Regulation of Taximeters.

Coincident with the going into effect of the new law regulating the operation of taximeters and providing for regular inspection of the instruments an attempt has been made to prevent the enforcement of the law. Indicating that the carrying out of the provision requiring taximeter cab operators to charge 40 cents for the first half mile, instead of 50 cents, as some of them have been doing, would cause a loss to his company of \$1,300 a month, John H. Naughton, treasurer of the Universal Taximeter Cab Co., which operates cabs from stands at the Knickerbocker and other hotels, attempted to secure an injunction restraining Frank V. S. Oliver, chief of the bureau of licenses, from putting the law into effect. The application was argued before Justice Bischoff, in Special Term of the Supreme Court, late last week and decision reserved. In prosecuting its duties, the new Bureau of Taximeters has taken a garage at 244 West 49th street, Manhattan, to which are sent all cabs discovered by the inspectors to have fast meters, or those which register an unlawful initial charge.

#### Where a Chauffeur is Not a Chauffeur.

By a strict and rather roundabout interpretation of the Massachusetts automobile law, it has been discovered that drivers of automobile fire apparatus, ambulances and the like are not required to obtain chauffeur's licenses. The loophole that has been found is in the definition of a motor vehicle, which, for purposes of speed regulation, is designated as including "automobiles, motorcycles and all other vehicles propelled by power other than muscular power, except . . . ambulances, fire engines and apparatus, police patrol wagons and other vehicles used by the police department of any city, town or park board solely for the official business of such department or board." The definition of a chauffeur designates a person who "operates a motor vehicle other than his own, etc." So, it is construed, that the driver of a motor fire engine is not a chauffeur, because he does not operate a machine that is, in the eyes of the law, a motor vehicle.

"The A B C of Electricity." Price, 50c. The Motor World Publishing Co., 154 Nassau street, New York City.



## ENGINEERING SIDE OF TAXATION

**Terry Points Out Absurdities of Present System—Reveals Opportunities in Solving License Problem.**

Motor car taxation ordinarily is considered entirely on its political merits. Perhaps a more equitable viewpoint, however, is that taken by Charles Thaddeus Terry, general counsel of the National Association of Automobile Manufacturers and chairman of the legislative board of the American Automobile Association, in an address, "The Basis for Motor Car Taxation," presented before the Society of Automobile Engineers at its recent meeting in Detroit. "This is fundamentally an engineering subject," asserted Mr. Terry, "inasmuch as it involves the proper method of computing the horsepower of cars, as well as the construction of highways adequate for modern needs." He further expressed the view that there is nothing in the nature of the automobile as a vehicle which should so far distinguish it from other vehicles using the highways as to warrant the imposition upon it of a special species of taxation.

"It is fundamental in our system of government that taxes shall be levied on the basis of equality and without discrimination; that they shall be levied upon some uniform basis which shall equalize the burden," he continued. "The prevailing basis of taxation in our country is that of valuation of the property taxed. If automobiles were taxed according to their value just as all other personal property is taxed according to its value, we should have no objection. If the distinction were made between all vehicles on the one hand and all other personal property on the other hand, and the discrimination were so far allowed to have its sway as to permit the imposition of a tax upon vehicles as such, and not in proportion to their value, then we must seek for the basis upon which the rate of taxation should be determined. There is only one possible basis of taxation of vehicles, if it is not to depend upon their value, and that is the amount of their use of the highway. . . . There is no ground in reason or logic upon which to predicate the proposition that automobiles should be taxed for the use of highways and all other vehicles go scot free. Different kinds of vehicles wear the highways to different degrees, and if we are to have a tax based upon the use of the highways, then it should be graduated according to the amount which each species of vehicle wears the road.

"If automobiles wear the roads, so do horse-drawn vehicles, and I am quite willing personally to stand upon the proposition and defend it anywhere and at any

time, namely, that if automobiles wear the roads, horse-drawn vehicles wear and tear them much more. It has been demonstrated beyond peradventure that, in the case of a properly constructed road, if it is used exclusively by motor vehicles, the condition of the road will be improved rather than impaired, and at the end of five years will be in a better condition than it was when it was made. I refer you to the experiment which was tried in Paris. There, one of the well known boulevards was laid out in sections, two of the sections devoted exclusively to horse-drawn vehicle traffic, and two to automobile traffic. All the sections of this boulevard were constructed with equal solidity and in a uniform manner. After five years, the two sections devoted exclusively to horse-drawn vehicle traffic were practically destroyed, whereas the two sections devoted exclusively to automobile traffic were in a condition much better than at the time they were opened for use. . . .

"It is the function of the Government to furnish roads adequate for the traffic which they should carry, not to compel vehicles to conform to the character of the roads, however poor. In short, the roads must fit the vehicle, and not the vehicle the roads. Roads which were good enough for the camel and the ox team, will not suffice for the bicycle and the automobile. . . . It is not the fault of the automobilists nor of their machines that some roads are in their present plight, but it is the fault of the road builders. They have, with the most calm and undisturbed obtuseness, persisted in dressing their surfaces with a finely comminuted material which they well knew or should have known must be displaced by the metal shoes and the narrow metal tired wheels of horse-drawn vehicles, and then thrown to the rear or sides by the so-called suction of broad rubber tires.

"If any class of citizens should be compelled to provide the revenue for the construction, repair and maintenance of roads, adequate for modern traffic, it should be the class of citizens who use vehicles, any kind of vehicles, and they should pay in accordance with the use which their particular kind of vehicle makes of the road, and in the proportion in which it wears the road. There is nothing clearer to my mind as a matter of law than that the tax, for road purposes, levied exclusively upon automobiles, is discriminatory, is class legislation, and for those two reasons unconstitutional. . . .

"In some instances the motor vehicle statute of a state has stripped the matter of all pretense of equality, has boldly asserted in substance that there is no logical basis upon which a graduated tax may be imposed upon motor vehicles, and has provided that each motor vehicle, upon registration, shall pay a certain fixed, flat, unalterable tax. This fee is, in some such statutes, ingenuously designated a 'regis-

tration fee.' But there is nothing in a name. Such a fee would be in reality and in law a tax irrespective of the cunning phraseology in which it might be veiled. Such a statute emphasizes the inclination to disregard the rights of automobilists in this respect. A flat registration fee of \$10, for example, is far in excess of what would be necessary to meet the expense of the registration office, and as a matter of fact a fee of that amount would and does provide revenue to the state. We can get no further back in fundamental principles than the Federal Constitution. . . . I recall them to your mind again at this time; they are as follows:

"No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor shall any state deprive any person of life or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws."

"And again, another provision of this same fundamental law of the land:

"No person shall be deprived of life, liberty or property without due process of law, nor shall private property be taken for public use without just compensation."

"As citizens of the United States, are we not now, as we have always been, at perfect 'liberty' to use the highways of the nation for intercommunication? That is what 'liberty' means. Has anybody ever questioned our 'liberty' to proceed with a horse-drawn vehicle over the highways of the nation as far and as frequently as we might choose? When we come to automobiles, shall a different principle apply?

"Nor shall any state deprive any person of . . . property without due process of law.' So says the Constitution. Is it not depriving a person of property without due process of law to compel him to pay an impost in order to exercise his right to use the roads? Can a natural, common law right be relegated into a privilege by the imposition of a tax for its exercise. If it is lawful and constitutional to compel a man to pay \$10 before he may exercise his right to use the roads, would it not be just as lawful to compel him to pay \$1,000 or \$2,000? And when you have reached those figures, you have put the matter in the absurd light in which it belongs. If the tax be considered to be imposed for the use of the roads and the maintenance thereof, what sense can there be in imposing the same tax on a large 60 horsepower car as upon a small runabout of 20 horsepower? The thing does not bring itself anywhere into the realm of reason.

"The state statutes taxing motor vehicles fly in the face of another provision of the Constitution. The document says no state shall 'deny to any person within its jurisdiction the equal protection of the laws.' Is it 'equal protection of the laws' to mulct the owner of a small runabout the same

amount that is paid by the owner of the 60 horsepower touring car? Can it be considered, by any stretch of imagination, to be 'equal protection of the laws' to require those who use the roads in automobiles to pay a special tax, while those who use the roads in any other kind of vehicle go free of the burden? Is it 'equal protection of the laws' to tax all other personal property a certain percentage of its value, but when you come to motor vehicles, tax them not only as personal property at the same rate, but also impose a further, additional and unstandardized tax without regard to value?

"... Eventually we shall dislodge this iniquity from the statute books, and must consider, meanwhile, if there is to be temporarily a tax imposed upon automobiles for the use of the roads, what the fairest basis of such a tax should be, and here we reach the province of the engineer. The formula worked out by automobile engineers, after years of study and experience, and popularly known as the A. L. A. M. formula, has, through our efforts in the New York State Legislature, been adopted by the State Government as the official standard by which to levy the tax on automobiles in that state. There can be no doubt but that it will be recognized elsewhere, and that if the formula of standard is improved upon by automobile engineers, such improved form will be substituted for that which has already received governmental recognition. . . .

"If road vehicles are to be segregated from all other personal property, then it would seem that a basis should be found and a test applied applicable alike to all classes of such road vehicles, and the discovery of such a test would be a notable achievement, and I believe would go a long way towards establishing the legal propositions which I have already summarized; because, if all road vehicles could be put upon an even plane of taxation, fair and equitable to each and every class of vehicle, then legislatures would be in a position to enact a perfectly scientific and unexceptional law in this respect. It would be unassailable, and would successfully resist all attacks, because of its equality and its fairness.

"What are the elements then which must enter into the calculation? In the first place, there is to a considerable extent the element of weight, but weight alone, of course, will not fix the amount of wear upon the road by the vehicle. It is not even a determining factor. It is simply an element. A small car of half the weight of a larger one, but going at twice the speed, will doubtless wear the road more than the larger car, so the speed at which the car may be driven is a factor, and a very important one. Your president, Mr. Coffin, has taken the pains to ascertain from the statisticians of the railroads information as to the ratio of wear and tear upon the rails as the speed of the locomotive is

increased, finding that the speed at which the engine is driven has much more to do with the wear and tear upon the rails than the weight of the locomotive or of the train.

"Then again, there is the factor of the manner in which the driving power of the engine is communicated to the wheels. If it be communicated gradually and easily, the start is made without much abrasion of the road. If, on the other hand, it be communicated violently and in a jerky manner, the abrasion to the road will be much deeper. Another element entering into the consideration is the size of the wheel. Still another is the width of the tires, and still another the character of the tires. The factor of horsepower is mixed up with the factor above referred to of capacity for speed. All these things and others must be borne in mind in solving the problem.

"... Whether in this matter of the taxation of road vehicles, the lawyer may be of assistance to the engineer or not, it is certain that the engineer may be of vast assistance to the lawyer. I leave you in conclusion three propositions, and they are these:

"First: There is no warrant in law for the taxation of motor vehicles exclusively, nor for the payment by the owner to the state of any sum in excess of the small expenses of a registration office.

"Second: If vehicles are to be taxed at all for the use of the roads, all vehicles must be taxed upon a uniform basis. This is demanded not only by the Constitution and the law, but by fundamental principles of justice and fair dealing.

"Third: If all road vehicles are to be taxed for the use of the roads, a scientific basis may be reached and a test devised which may be applied to every class of vehicles alike, and this is a paramount service which you may render to all motor vehicle users everywhere."

#### Spain Plans Great Circuit Highway.

Spain, at present in the throes of a political and religious upheaval, has not been much in the limelight as a touring country, mainly on account of the atrocious condition in which the state highways have been for many decades past. Not only are the roads themselves poorly made and negligently kept, but there often is no provision made for crossing streams and ravines. How extraordinary the conditions in that country are at present is evident from the experience of the Perigueux Automobile Club. The members of this club of Southern France, 80 strong, started for Barcelona in June last, and were unable to do more than cross the frontier. Although in the best season of the year, with few rains and storms, the rivers were unbridged, ravines halted the advance of the tourists wherever they endeavored to turn, until finally they were compelled to retrace their way and give up the idea of a tour to the

Spanish city. What people call country roads in Spain are usually nothing but wide trails thickly covered with sand and dust.

"To remedy these conditions," says consul Hill, of Barcelona, "and in order to bring into Spain some of the thousands of automobiles rolling over the highways of Europe, the Barcelona Automobile Club has started a movement for the construction of a national highway, practically circling the entire country, and touching all the principal points of interest, viz., Vittoria, Burgos, Valladolid, Madrid, Toledo, Ciudad Real, Cordova, Seville, Malaga, Granada, Murcia, Alicante, Valencia, Tarragona, Barcelona, Gerona and La Junquera. In addition to this circuit highway there are connecting highways which, it is stated, are already in fairly good shape. These roads are those from Barcelona to Madrid by way of Saragossa and Guadalupe, and the roads in the north of Spain and to Lisbon.

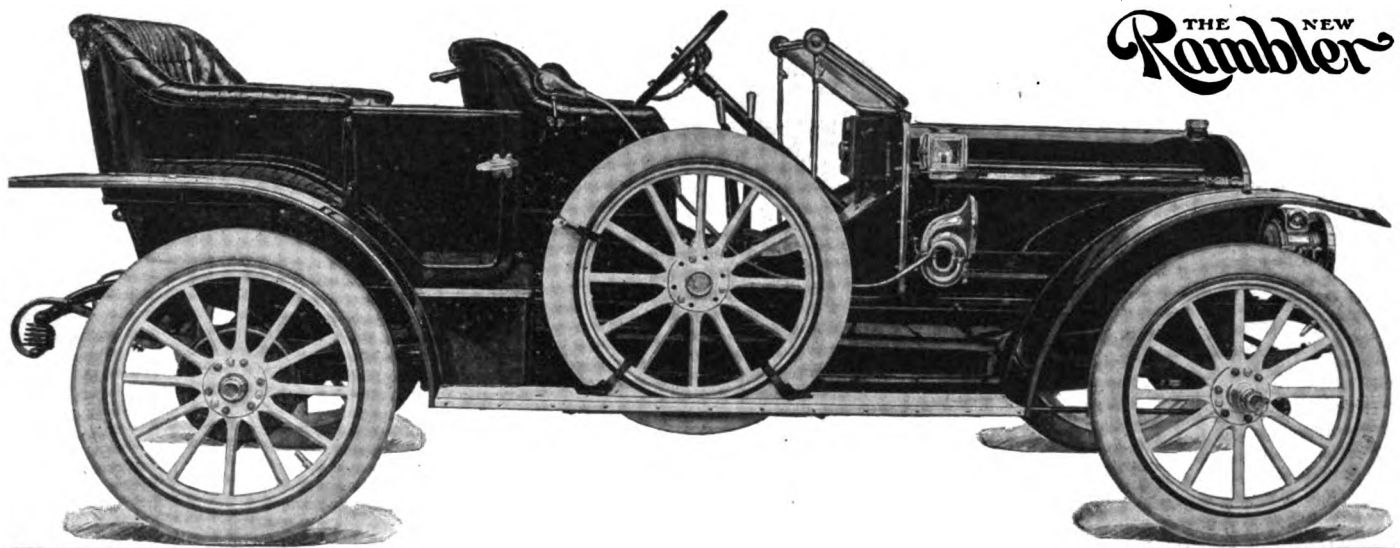
"The circuit highway as proposed would be about 1,674 miles. No new roads will have to be built, although most of the distance will have to be thoroughly repaired and in many instances bridges must be built. It is estimated that an appropriation of from \$1,440,000 to \$1,800,000 would put the circuit highway in shape for motoring, and that a yearly outlay of from \$270,000 to \$360,000 would keep it in good repair.

"It is proposed, when the circuit highway is ready for traffic, to inaugurate it by a grand prize of Spain, a motor-car contest over the whole route under the patronage of the Government. The present minister of public works announces his intention of following his predecessor's policy in regard to this circuit highway—his predecessor having taken an active interest in the proposition."

#### Good Roads Convention in October.

On October 6th, 7th and 8th the third National Good Roads convention will be held at St. Louis, Mo. Preparations for the event are being made by the American Automobile Association, the National Grange Farmers' Union, American Road Builders' Association, U. S. Office of Public Roads and the National Association of Automobile Manufacturers.

The convention will be divided into two parts, one devoted to the roads proposition in its general aspects, and the other occupied with technical papers, prepared by the most noted experts. Invitations to attend the convention will be sent by President L. R. Speare of the A. A. A., on behalf of the committee in charge of the convention, to the governors of states, mayors of cities, state highway commissioners, park commissioners of cities, county commissioners and town highway commissioners throughout the entire country, as well as to officers of farmers' organizations, automobile clubs, automobile and vehicle manufacturers, and other interests involved in road making and road machinery.



THE NEW  
**Rambler**

**T**HE Fifty-four Toy Tonneau is a mid-season New Rambler model. It is an evolution from the Close Coupled model, designed for the same demand, but a little more roomy.

Its advantages are low seats, two inches longer than usual from front to back. Seat cushions tilted and rakish seat-back to correspond. Body smaller and lighter than the touring car but tonneau roomy enough for three people of average size. Three inches more leg room in front than touring car. Rakish steering column.

With five lamps, Prest-o-Lite tank or generator, magneto and storage battery, horn and tools, \$2,250. Top with side curtains, \$100. Wind Shield \$40. Spare Wheel \$85.

**Thomas B. Jeffery & Company**

Main Office and Factory: Kenosha, Wisconsin

Branches: Chicago, Milwaukee, Boston, Cleveland, San Francisco

## RECENT PATENTS.

962,445. Filler or Junk Plate for the Crank Cases of Explosive Engines. George W. Marble, Chicago, Ill., assignor of one-half to William R. Donaldson, Chicago, Ill. Filed May 11, 1907. Serial No. 373,189.

1. In a device of the class described a crank plate, junk or filler plate secured on each side of the crank plate having interlocking flanges adapted to engage around the periphery of the crank plate.

962,448. Automobile Controller Lever Lock. Franklin C. Miller, Easton, Pa. Filed April 26, 1909. Serial No. 492,189.

1. An automatic attachment comprising a controller, means for holding the controller in different operating positions, and a key-controlled device permanently carried by and projecting from the controller and adapted to be thrown into and out of co-operative relation with the said holding means.

962,450. Shaft Reversing Mechanism. John D. Mooney, St. Paul, Minn. Filed Oct. 5, 1906. Serial No. 337,557.

Transmission mechanism comprising a driving shaft having a circular flange at its end, a balance wheel bolted to said circular flange, integral gears of different sizes mounted on said bolts, a surrounding casing bolted to said balance wheel and having openings within which said first named bolts are supported, a driven shaft having an integral gear near its end and adapted to mesh with the larger members of said integrally formed gears, a sleeve rotatably mounted on said driven shaft, a gear formed integral with said sleeve, a frusto-conical flange bolted to said balance wheel and having an inner friction surface, a complementary conical member having an outer friction surface and splined on said sleeve, a spring for normally forcing said complementary member into contact with said cone, a ring threaded on said sleeve, cam levers pivoted on said ring, and contacting with said conical member, a cone for operating said lever to force said conical member out of clutching position against the tension of said spring, said conical member having an integral circular flange, a split band on said flange, and lever mechanism for shifting said cone to disengage the clutch and simultaneously tightening said band to brake said conical member and thereby hold said sleeve stationary.

962,487. Vehicle Top Bow Holder. Sherman T. Allen, Detroit, Mich. Filed Aug. 2, 1909. Serial No. 510,716.

1. In combination with the bows of a vehicle top, laterally projecting members fixed thereto, a receiving bracket into receiving portions of which each of said members is adapted to reach when said bows are lowered, and a holding member adapted to be locked in position over said bracket and said members, substantially as described.

962,509. Motor Vehicle Lubricating Means. Russell Huff, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 4, 1906. Serial No. 320,189.

1. In a motor vehicle, the combination with an engine base constituting a crank case, of cylinder casings supported on said base, an oil tank supported on said base and contiguous to said casings, and a tube passing through and connected with the oil

said vent tube communicating with the crank case below the oil tank and with the atmosphere above the oil tank.

962,518. Pump. James E. Naughtin, Chicago, Ill. Filed Aug. 21, 1909. Serial No. 513,934.

1. In a pump, the combination with a cylinder having a discharge opening in its side, of two interfitting and relatively slidable members one of which fits slidably in said cylinder and has a chamber therein opening into the cylinder and a port opening into said chamber from the side, one of said interfitting members being rotatable and the other being non rotatable, and a cam device operated by one of said interfitting members and operating upon the other of said interfitting members for the purposes described.

962,604. Spark Plug. Gregor Walzell, New York, N. Y. Filed Sept. 3, 1909. Serial No. 516,068.

A spark plug provided with a cap, an inclosed charge of platinum sponge, an open work keeper that confines the platinum sponge within the cap, a first electrode centered upon the keeper, and a second co-operating electrode.

962,622. Speed Gage. Louis A. Casgrain, Beverly, Mass. Filed Dec. 8, 1906. Serial No. 346,844.

1. A speed gage having, in combination, a rotary indicator provided with a series of graduations to indicate a given range of speeds extending around the indicator a plurality of times, means actuated by the object of which the speed is to be indicated for exerting a rotative force on the indicator varying with the speed of the object, and a spring acting on the indicator in opposition to said rotative force, constructed and arranged to permit the indicator to make a plurality of revolutions as the speed of the object varies through the range for which the indicator is designed and co-operating with said force to bring each graduation opposite a fixed point as the object attains the speed indicated by the graduation, substantially as described.

962,626. Automobile. Claude E. Cox, Minneapolis, Minn. Filed Oct. 29, 1909. Serial No. 525,365.

1. In an automobile, the combination, with the main frame and its supporting wheels, of a driving axle structure, a transmission gearing drivingly connected with the movable members of the driving axle structure and movable as a whole relative to the main frame, a controlling lever mounted upon the main frame and movable thereon in two planes, a rock shaft carried by the body of the transmission gearing and movable therein both rotatively and axially, a member carried by said rock shaft and adapted to engage with either of two shifting members comprised within the transmission gearing, and intermediate flexible connections between the controlling lever of said rock shaft, compensating the relative movement between the transmission gearing body and the main frame, whereby said rock shaft may be shifted rotatively and axially by the controlling lever on the main frame.

962,633. Rear Axle Construction. Royal H. Gilbert, Lakewood, Ohio. Filed Feb. 19, 1907. Serial No. 358,229.

1. In a motor vehicle, in combination, suitable driving wheels, an axle for operating the same, a driving member, suitable coupling devices between said axle and each of the driving wheels whereby the

former may be coupled to the latter to drive the same in either direction, each of said wheels being capable of rotating independently at greater speed than the axle when driving in either direction, and means automatically operated and arranged between said driven member and said axle for bringing about the automatic operation of such of the coupling devices as will cause the wheels to be driven by the axle in the proper direction.

962,649. Carburetter. Harry A. Miller, Los Angeles, Cal. Filed Nov. 16, 1909. Serial No. 528,399.

1. In a carburetter, a nozzle, means for supplying gasoline thereto, a rod slidable above the nozzle with its lower end extending into the mouth thereof, a shaft extending into the carburetter, an eccentric on the shaft adapted to limit the upward stroke of the rod, a spreader surrounding the rod, and a flange on the shaft forming a stop to limit the upward movement of the spreader.

962,653. Starting Apparatus for Gasolene Engines. Vaughan Morrill, Tacoma, Wash. Filed March 9, 1910. Serial No. 548,147.

1. In an apparatus for starting gasolene engine, the combination with the engine; of a removable valve casing mounted thereon and having a passage leading to the engine cylinder and an exhaust passage; the valve in said casing and having a gasolene measuring receptacle therein and an exhaust passage therein; a gasolene supply pipe leading to the valve; a compressed air supply pipe leading to the valve and means to operate said valve.

962,680. Protective Casing. Bernhard Volkmar, New York, N. Y., assignor to Auto Improvement Company, a Corporation of New York. Original application filed Sept. 4, 1908. Serial No. 451,706. Divided and this application filed Dec. 9, 1909. Serial No. 532,176.

1. A protective inclosing casing comprising two parts secured together by rotational engagement, means for securing the casing to a support, such means being releasable only from within one of said parts and being protected from access by the other part, and means for sealing the two parts together comprising lugs on both parts, a bar adapted to engage with such lugs to prevent disengaging rotation of the parts, and a seal for holding the bar in such engaging position.

962,703. Auxiliary Spring for Vehicles. John Eckhard, Boston, Mass. Filed Feb. 4, 1910. Serial No. 542,115.

1. In a vehicle, the combination with an axle, of a vehicle body, a main spring supported by the axle and sustaining the body, an auxiliary spring device comprising a spring holder carried by the axle, two coil springs carried by said holder, one of greater strength than the other, a cap for each spring, and tie-rods secured to each cap and passing loosely through the holder one of said caps having ears thereon through which the tie-rods of the other cap pass.

962,729. Automobile Tire. George F. Annis and Charles C. Annis, Freedom, Okla. Filed May 9, 1908. Serial No. 431,883.

A tire having its tread surface formed with a plurality of parallel peripherally extending continuous ribs and obliquely extending ribs connecting the intermediate peripheral rib with the outside ribs, said obliquely extending ribs forming a series

of pockets each having one end beveled and the other under-cut.

962,730. Tire Carrier. Charles F. Batt, New York, N. Y. Filed April 1, 1909. Serial No. 487,154.

1. A spare tire holder comprising a frame consisting of a vertical section, a horizontal section adapted for adjustment to a vehicle on the outer side of the spare tire, a section of said frame constituting a continuation of the horizontal section and inclined in front of said spare tire toward the vehicle frame, securing means on said frame, brackets to support said vertical section and said inclined section.

962,790. Scleroscope. Albert F. Shore, New York, N. Y., assignor to Shore Instrument Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Nov. 26, 1907. Serial No. 403,981.

1. An apparatus for testing the hardness of solid bodies, which consists of a finely pointed superhard striker impinging said bodies, vertical guiding means for directing the course of the striker, and means for observing and registering the rebound of the same.

962,814. Means for Securing Tires to Vehicle Wheels. Charles G. Cabanne, St. Louis, Mo. Filed Sept. 30, 1908. Serial No. 455,493.

1. The combination of a felly carried rim, formed at one side with an outwardly extending flange and at its other side with an inwardly extending flange, having at intervals forwardly and rearwardly extending inclined tongues and diagonal passageways between the inclined tongues, and a retaining ring having an outwardly extending flange and a rearwardly extending flange formed with diagonally arranged peripheral fins adapted to occupy the diagonal passageways of the felly carried rim.

963,044. Friction Clutch. Russell Huff, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed April 27, 1907. Serial No. 370,620.

1. In a device of the class described in

combination, a cylindrical friction surface, a split ring adapted to engage said surface, one end of said ring being anchored and the other end movable to engage said surface, and means adjacent the anchored end of said ring to yieldingly press the same against said surface, substantially as described.

963,048. Tire Fastener. Ruric W. Jordan, Boston, Mass., assignor to Jordan Demountable Rim Company, Boston, Mass., a Corporation of Massachusetts. Filed May 15, 1907. Serial No. 373,837.

1. The combination with a wheel, of a rim comprising inner and outer sections, the inner section being secured to the felly, and the outer section having slots along one of its edges, and an expansible ring on the outside of the inner section, and having teeth entering the aforesaid slots.

963,081. Vaporizer or Carburetter for Gas Engines. Charles D. Shain, Rockaway Park, N. Y. Filed Feb. 6, 1909. Serial No. 476,539.

In a vaporizer or carburetter a gasolene or liquid fuel supply valve or cock with lever having in its end a swivel stud with a threaded hole in one end, an adjusting rod of electrical conducting material with an insulated portion, one end of the adjusting rod provided with a thread which screws into the swivel stud, the other end of the adjusting rod having a hand wheel; an insulated block with a hole through it attached to a support, through which the adjusting rod passes, the insulated block provided with two spring contacts bearing against the adjusting rod; the insulated block having binding posts in contact with the springs of the spring contacts, with wires connected to the electrical sparking source of a gas engine, arranged so that by sliding the adjusting rod back through the hole in the insulated block, the supply valve or cock can be opened and the electrical sparking circuit of the gas engine established, and by sliding the adjusting rod forward through the hole in the insulated block, the supply valve or cock can be closed and the electrical sparking circuit of the gas engine disrupted; and by turning the adjusting rod when the supply valve

or cock is in the open position, the partial closing of the supply valve or cock can be regulated and the electrical sparking circuit of the gas engine maintained without interruption, all substantially as set forth.

963,094. Shock Absorber. Charles Swan, Corry, Pa. Filed Jan. 22, 1909. Serial No. 473,673.

In a shock absorber, the combination of a cylinder; means for attachment to an axle and a vehicle body, one of said means being in the form of a bracket on said cylinder; a second bracket on the cylinder, one of said brackets on the cylinder being adjustable; supports at each end of the cylinder for receiving the end thrust of the spring; a bell crank lever secured to the second of said brackets on the cylinder; a rod extending through the spring; devices on the rod for engaging each end of the spring; a connection between the rod and the bell crank lever; and a connection between the bell crank lever and the other of said means comprising a rod having shoulders thereon and slidingly connected with the bell crank lever, said shoulders being spaced to engage the bell crank lever only with an excess of relative movement between said means.

## AUTO TIRES

Prices subject to prior sale

28x3 .....	\$14.50	30x4 .....	\$26.50
30x3 .....	15.00	32x4 .....	28.75
30x3½ .....	21.50	34x4 .....	30.75
32x3½ .....	23.00	36x4 .....	31.50
34x3½ .....	23.50	34x4½ .....	36.75

These are Imperial 1910 tires, all brand new stock and are the greatest bargain we have ever been able to offer. Our terms are cash with order or C. O. D. When cash in full is sent we allow a discount of 5%. On C. O. D. shipments we require a deposit sufficient to cover express charges one way. You take no risk, for we agree to refund the purchase price if the tires are not satisfactory and you return them to us unused.

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1229 Michigan Ave.

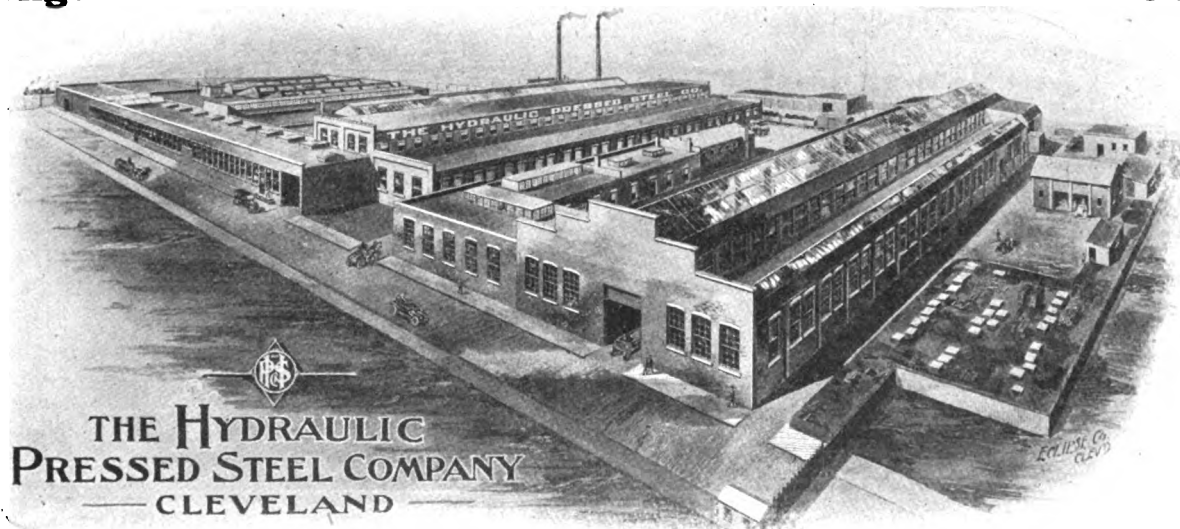
Chicago, Ill.

## Stampings

## Brake Drums

F  
R  
A  
M  
E  
S

F  
R  
A  
M  
E  
S



R. B. McMULLEN, Gen'l Sales Agent, Chicago, Ill.



## Maxwell Cars—1911 Line

Model	Style	Cylinder	H. P.	Price
E. A.	Touring Car	4	30	\$1600 fob
G. A.	Touring Car	4	30	1600 fob
G. A.	Roadster	4	30	1600 fob
E-11	Touring Car	4	30	1500 fob
G-11	Touring Car	4	30	1575 fob
I	Touring Car	4	25	1100 fob
Q-11	Runabout	4	22	900 fob
Q-3-11	Touring Car	4	22	1000 fob
A. B.	Runabout	2	14	600 fob

Maxwell-Briscoe Motor Co. Vale Street  
Tarrytown, N. Y.

## A Bad Beginning Means a Worse Ending

Begin right. The right beginning means the selection of the right kind of fine cylinder castings, pistons, etc.

We make them and have been making them for years for those manufacturers who know "what's what" and where to get it.

MAY WE SERVE YOU?

THE MANUFACTURERS FOUNDRY CO., Waterbury, Conn.

The only car of established reputation  
selling at a moderate price.

# HAYNES

\$2000

Station C, KOKOMO, IND.  
Licensed under Selden Patent.

# 575,000

## Bosch Magnetos

### Manufactured and Sold

## The 1911 Metz Runabout

Assembled, Trimmed and Painted, Completely Equipped **\$485** Our entire output will be handled exclusively by dealers.

Applications for agency will be considered in rotation in which they are received. Wire your application for territory and follow with letter giving particulars regarding your facilities for handling agency and number of cars you expect to sell each month of our fiscal year beginning August 1.

METZ COMPANY, Waltham, Mass.

## "RAJAH" SPARK PLUGS

IGNITION ABSOLUTELY SURE

### RAJAN AUTO SUPPLY COMPANY

BLOOMFIELD, NEW JERSEY, U. S. A.

(Watseong Station, D. L. & W. R. R.)

## De TAMBLE

5 Distinct Models for 1911

Model 'D'	4 cyl., 5 passenger, Torpedo	\$1400
Model 'C'	4 cyl., 5 passenger, Touring	1275
Model 'H'	4 cyl., 4 passenger, Baby Ton.	1100
Model 'G'	4 cyl., 2 passenger, Roadster	985
Model 'B'	2 cyl., 3 passenger, Roadster	650

**AGENTS** If you have not contracted for your 1911 requirements, for information regarding territory on above, write or WIRE the

**CAR MAKERS SELLING COMPANY**

1256 Michigan Avenue

Chicago, Ill.

YOU CAN ALWAYS DEPEND ON

## Reliance Spark Plugs

\$1.00—Magneto Type \$1.25

Ask your dealer for the Reliance. If he hasn't it, don't run risks of trouble by accepting a cheaper substitute, but write to us. We will fill all orders promptly, prepaid, on receipt of price.

Our booklet on spark plugs makes interesting reading for every owner of an automobile or motor boat. Send for a copy—to-day, while you think of it—and get one of our astonishing electrical novelties free.

**JEFFERY-DEWITT COMPANY**

65 Butler Avenue

Detroit, Mich.



## ROYAL IS NUCLEUS FOR A MERGER

**Ambitious Plans for New \$4,000,000 Company—To Pick up Factory Bargains—Cars Direct to Consumers.**

In its reorganization, as forecasted in last week's Motor World, the Royal Tourist Car Co., of Cleveland, Ohio, is to form the nucleus for what is launched as a "big merger of automobile interests" and which is known as the Consolidated Motor Car Co., of Cleveland, a \$4,000,000 corporation, the stock of which is divided equally into common and preferred shares. The fiscal activities of the enterprise at present are being conducted by M. D. Kleinzahler, of M. D. Kleinzahler & Co., Youngstown, Ohio, investment brokers, but the "real parties interested" shortly are to be disclosed.

Although it is capitalized at \$4,000,000, the merger company may go much more deeply into the industry than that, according to Kleinzahler, who indicates that in its process of buying up available automobile manufacturing properties, the prospects are that it will invest at least \$18,000,000 within a very short time. The merger concern has its eye on a commercial vehicle plant and also is considering the feasibility of acquiring the bankrupt Mora Co.'s plant, at Newark, N. Y., in addition to the Royal property and others that are not far from Cleveland.

The company proposes the introduction of "a new, sound and conservative business method of amalgamating the manufacturing and selling ends of a choice group of automobile properties." Kleinzahler declares that a radical selling policy will be instituted.

"We shall sell cars directly to the consumer," he declares. "There will be no middleman. Detailed plans will be announced later. We expect to save the agent's commission to every purchaser. In addition to the Royal we shall make two

cheaper ones, at \$2,500 and at \$1,500, respectively."

## Goodyear Increases Capital to \$6,000,000.

The Goodyear Tire & Rubber Co., of Akron, Ohio, has decided to increase its capitalization from \$2,000,000 to \$6,000,000 and has declared a cash dividend of 12 per cent. and a stock dividend of 100 per cent. A special meeting of the stockholders in Akron on the 8th inst. confirmed the recommendation of the directors for the increased capitalization. The increase will be entirely in the common stock. The directors offer the stockholders the right to subscribe for \$500,000 preferred and \$250,000 common, but stock not taken by present stockholders after a limited time is to be offered to the public.

## Price on Tire Chain Grips Coming Down.

Although success in patent litigation usually presages a stiffening of prices on the goods involved, it is to have a contrary effect in the case of the Weed tire chain grips, the price on which, it is definitely known, will be reduced early next month. The exact extent of the reduction is not public property, but that it will be a "decided" one is admitted by the Weed people.

## Broadwell to Leave Fisk for Hudson.

E. H. Broadwell, vice-president of the Fisk Rubber Co. and so long identified with that company as to seem a permanent fixture, unexpectedly has tendered his resignation, which becomes effective September 1st. On that date he will become vice-president of the Hudson Motor Car Co., Detroit, in which city Broadwell for years was the Fisk representative, but he has traveled so extensively that he is one of the best known men in the trade.

## Krit Prepares to Enlarge Plant.

The Krit Motor Car Co., Detroit, has increased its capitalization from \$110,000 to \$250,000. Among other things, the new money will be used to add two stories to the company's factory of Leib street.

## RESTRAINS GARAGE NIGHT NOISES

**Injunction Against New York Establishment—Court's Opinion Important in Showing Legal Status of Garages.**

Prospective builders of garages in residential districts gained a valuable victory last April when the Appellate Division of the New York Supreme Court decided that property owners cannot obtain injunctions against the building of garages by endeavoring to show that a garage is a nuisance, but property owners had an inning on the 12th inst., when an injunction was granted by the New York Supreme Court against a garage in a residential part of New York City, forbidding it from creating noises of any kind that might prove objectionable to the neighbors, between 10 p. m. and 6 a. m.

The injunction was issued by Justice Goff against the Uptown Garage Company, West 124th street, near Seventh avenue, at the instance of Diederich W. Rhode and other property owners of nearby apartment houses, who complained that their tenants could not sleep because of the noises and odors emanating from the garage at night. In granting the injunction Justice Goff commented upon the necessary noises of a large city, and took up the point as to when a garage is guilty of "nuisance."

"It is doubtless true," says Justice Goff in his opinion, "that one who lives in the city cannot expect the quiet of the country and must pay the price of being close to these activities which make city life attractive, by suffering some degree of annoyance. It is also true that disturbing noises, to warrant injunctive relief, must be substantially disturbing with reference to all the circumstances in the case. This neighborhood is residential. Noises which prevent sleep, and offensive odors which produce nausea, are nuisances."

"While the defendant is engaged in a legitimate and useful business, yet it must operate with due regard to the comfort of

its neighbors, and if it can conduct its business without noise and offensive odors, it is bound to adopt whatever means are requisite to that end, taking the discomfort and expense to itself rather than impose upon its neighbors."

The garage company is directed by the court to refrain from permitting engines, either on a repair stand or in cars, to be run without mufflers between the hours specified, and no hammering or pounding is to be permitted in the period unless made necessary by some unusual emergency.

In some respects the decision is highly important in dove-tailing with last April's decision by Judge Merrell, of the Appellate Division, in a suit brought by property owners in Utica, N. Y., to prevent the Central Auto Sales Company, of that city, from building and operating a garage in what was designated as a fashionable residential section. The two decisions together serve to help establish the legal status of a garage in conflicts with property owners who claim that a garage per se is a nuisance. Richard W. Sherman, a relative of Vice-President Sherman, was the complainant in the Utica case, and he sought the injunction on the ground that the garage, if it were erected and operated, would prove a nuisance to the neighborhood because of its noise and bad odors.

Judge Merrell held that Sherman's action for an injunction was brought prematurely, not against an existing evil, but against one which was feared. The court expressed the view that "a public garage may be so conducted that its objectionable features may be eliminated or at least minimized to an extent that its operation will not unduly annoy or inconvenience those who reside nearby," and the court went so far as to make the assertion that "Public garages have become a necessity." He made it plain, however, that they do not enjoy any legal right to conduct a nuisance in the operation of their business, and must be regulated by proper rules.

The Utica decision and that given by Justice Goff in New York City indicate that a garage itself cannot be considered a nuisance merely because it is a garage, but that like any other establishment it may be restrained by the courts in case its operation becomes so offensive to the neighbors as to constitute a nuisance in the legal sense.

#### DeTamble Likely to Change Hands.

Negotiations are in progress for the sale of the DeTamble Motors Co., of Anderson, Ind., to Eastern interests, who will continue the operation of the plant. Edward S. DeTamble, the president, and Fred DeTamble, sales manager, are indicated as preparing to sell their holdings previous to going to California. The plant was established in Anderson two years ago on promise of a bonus of \$50,000, of which all but \$18,000 has been paid.

## BRISCOE TELLS NEED OF CAUTION

**Explains to United States Motor Stockholders why Company is "Going Slow"  
—Not Boosting Quotations.**

Holders of preferred shares in the United States Motor Co. late last week received their checks for the first quarterly dividend of  $1\frac{3}{4}$  per cent. The checks were accompanied by a financial statement of much interest and a frank letter from President Benjamin Briscoe that is timely and of value far beyond the confines of the big merger.

According to the general balance sheet of the company for the first quarter, ending June 1, 1910, the inventory and quick assets amount to \$10,560,906.52. There has been issued \$8,885,950.00 worth of preferred and \$10,723,675.00 worth of common stock. The current liabilities are given as \$4,529,237.57, and the reserve for depreciation of plants is \$687,073.39. The total surplus is \$1,589,303.23. The net income from operations was \$1,800,293.73, sufficient to pay the quarterly dividend on the preferred stock and leave a surplus equal to about 15 per cent. of the common stock.

"It has been the desire of your directors to place the common stock on a dividend basis at this time," said President Briscoe in his letter to the stockholders, "but owing to unexpected developments in the general financial situation of the country it appears to be a prudent and conservative course to await a more propitious time, at least until the nervousness now so pronounced among bankers shall have subsided.

"It has been the custom for years for uninformed people to predict a disastrous ending to the automobile business in general. The splendid way in which the industry weathered the panic of 1907 was the envy and wonder of all business men and should have set at rest forever these thoughtless carpings.

"There may be weak spots in the industry. It would be different from all others if there were not. Nevertheless, the business of making and selling motor cars is and will continue to be as staple as the railroad, the street car, the telephone or any business that has a product that represents an economic usefulness.

"The course adopted for the immediate future is one of caution. While general financial conditions seem to have reached their worst and to be now on the upward trend, nevertheless, impregnable safety is the most important of all considerations. Stories of fabulous profits in this business, some of them to some extent true, have stimulated many ill-advised promotions which are likely to have the same result that is usual with any business when attempted on insufficient capital or conducted

by men unfamiliar with that business.

"Such phenomena are not uncommon in any industry, but until the wheat shall have been separated from the chaff in the automobile business, we must expect to bear a little of the reflected odium of some other people's actions.

"Sales and collections are normal for this season of the year. The quantity of goods manufactured and in process in our plants is not greater than is right and normal for this season. Some of the plant extensions and permanent investments that had been planned have been held up temporarily pending more settled financial conditions, but it is expected that conditions will warrant their continuance in time to take advantage of the very large business offered for the coming year.

"It may be said that the officers of the company pay little attention to the price of the company's stock, for whether it is high or low in no way affects the earnings from its operations."

#### Ford's \$350,000 Bond Forthcoming.

"It will be no more to us than paying our water bill," is the nonchalant way in which James Couzens, of the Ford Motor Co., Detroit, Mich., treats the matter of the Ford company's putting up \$350,000 bond pending an appeal of the Selden decision. The bond is required by Judge Hough's direction, if the company takes an appeal from the decision rendered against it in the United States Circuit Court for the Southern District of New York last September, but the decree for which was filed only last week, as told in the Motor World. With the Ford decree, Judge Hough also filed decrees against Panhard & Levassor, John Wanamaker and the other defendants enjoining them from infringing the Selden patent, but providing for a suspension of the injunctions in the Ford and Panhard cases provided these defendants take an appeal and file bonds of \$350,000 and \$16,000 respectively. The injunctions against all the defendants have been issued and served in due course, in accordance with the decrees. The Ford company indicates that it has prepared its appeal for filing, that it will put up the \$350,000 in cash, and that it expects a decision on the appeal before next Christmas, inasmuch as the case has been given the reservation of a preferred position on the docket for an early hearing. The latter will be comparatively brief, relating to the law only.

#### Republic Rubber Building Big Addition.

The Republic Rubber Co. has let contracts for the erection of a five-story fire-proof addition, 80x200 feet, to its plant at Youngstown, Ohio. The new building will be devoted wholly to the production of the Republic staggered tread tires and will have no reference to another addition, 90x250 feet, which is being built but which is intended for other purposes.

## BACK FROM SOUTH AMERICAN TRIP

**Rogers Tells of His Adventures in Placing Mitchell Agencies—Languished Three Days in an Argentine Jail.**

G. Vernor Rogers, secretary of the Mitchell-Lewis Motor Co., Racine, Wis., who recently returned from an "invasion" of South America, returned with more than a sheaf of orders for Mitchell cars. Among others, he brought back memories of three days spent in a Buenos Aires jail before the ponderous machinery of the court was put into motion. He had been arrested for the terrible crime of brushing a pedestrian with the fender of an automobile he was driving.

"A great hubbub was caused by this excitable individual, who was not injured in any way," says Mr. Rogers. "It was an obvious attempt to hamper a stranger and I naturally rebelled. The effort to measure me under the Bertillon system was frustrated by my arguments. Obeying the custom, I produced \$100 to hear the alleged injured man say he had lied to the police and added \$50 for court fees and was freed."

When able to do business Rogers placed the agency for the entire Argentine Republic with Odell Hijos & Cia., Florida 964, Buenos Aires, to whom were allotted sixty cars. At Montevideo the agency for all of Uruguay was given to Luis Daglio & Cia.

Not a little of the spectacular feature of Rogers's travels in South America was furnished by the journey from Buenos Aires over the great Cordilleran range of the snow-clad Andes of Chile. With the Mitchell-Lewis official were Mrs. Rogers and Dr. Frederico Sarda, D.D.L. Mules were obtained for mounts and the sure-footed beasts carried the whole party in safety both on the westward journey and the return trip to the Atlantic seaboard. At Santiago, Chile, the Racine man found a wholesale growth of sentiment in favor of American-made cars, and assigned the agency for that country to Senora Boza y Rivano San Antonio, 816.

"From Uruguay to Brazil," continued Mr. Rogers, "the trip was one of constant surprise at the extreme rapidity with which the economic development of the country is being emphasized. Rio is a wonderful city—in my estimation it is the most beautiful city in the world."

A simple lesson in arithmetic bearing upon the foreign shipments of automobiles was developed as the result of Mr. Rogers's trip. He learned that a car might be shipped from Racine to Buenos Aires for \$95, whereas the same machine consigned to San Francisco would cost \$150 in freight.

### Demotcar Admits Its Insolvency.

The Demotcar Co., Detroit, has been petitioned into bankruptcy by three local

creditors, who allege among other things that it has given preference to other creditors. The Demotcar Co. owes more than \$100,000 and admitted its insolvency and willingness to be adjudged a bankrupt. As its financial embarrassment previously was a matter of general knowledge, its outright failure caused small surprise.

### May Mulct Windshield Makers.

Planning to collect a royalty of \$1 on every windshield of the "zigzag" or inclined section type that has been made in this country or that will be made for some years to come, a patent holding concern known as the Stahlbrodt Co. has been incorporated in Rochester, N. Y. The company has acquired what is claimed is a "basic" patent on windshields of this type, the patent being that granted to an English army officer, Major Henri S. Samuels, February 18, 1908. The company's only object at present is to establish its patent claims and collect royalties, although it later may engage in windshield manufacture. The stockholders are Lawrence Stahlbrodt, Allen M. Brewer and Homer Reichench.

### Mais Forms \$500,000 Truck Company.

After developing a motor truck in Peru, Ind., where they took manufacturing space in the Brownell-Booth Co.'s plant last winter, A. F. Mais and E. W. Spencer have returned to Indianapolis, Ind., and have incorporated a \$500,000 company, to be known as the Mais Motor Truck Co. The truck was designed by Mais, while Spencer is business manager of the enterprise. A. W. Markham and Charles Fisher are named with Spencer as directors.

### New Detroit Company to Produce "Sixes."

With Malcolm T. Faulkner as the moving spirit and business manager, the Faulkner-Blanchard Motor Car Co. has been organized in Detroit, and shortly will be incorporated. It plans the immediate production of one hundred 34 horsepower, six-cylinder cars, which will be styled the "Faulkner-Blanchard Gunboat Six." Its first model is already on the road.

### Anhut to Reorganize and Change Name.

The Anhut Motor Car Co., Detroit, which had suffered a financial stringency, has secured necessary extensions and will be reorganized and its name changed to the Barnes Motor Car Co. Its new capitalization will be \$375,000, of which \$75,000 will be preferred stock.

### Hudson Organizes a New Department.

The Hudson Motor Car Co., of Detroit, has instituted what it styles a "merchandizing department." It is made up of a number of expert salesmen, whose object is to show Hudson dealers "how to get in touch with consumers, how to interest them and how to make sales".

## SHARES SHOULD BE \$2,548 EACH

**General Motors Lithographs Glowingly Exploited in Hard Stock Selling Campaign—Some Daring Comparisons.**

In a campaign to create a sufficiently large market for the disposal of the immense volume of lithographed paper that the General Motors Co. has prepared for outsiders to take in exchange for real money, the General Motors Securities Co., which was created last April, is exhibiting an activity and enterprise little short of remarkable, and incidentally is exposing the financial heads of Standard Oil, Union Pacific, Amalgamated Copper, United States Steel and the like, as a bunch of pikers and incompetents in comparison with the "wizard" of the automobile merger corporation. The Securities company supplies the figures to prove it, and also to show that, if viewed in the proper light, General Motors common shares should sell at \$2,548 per share instead of a mere \$108 per share, at which they were quoted in a Detroit newspaper last April.

These interesting disclosures are provided in circular letters and printed matter with which the Securities company is bombarding brokers, bankers and investors, with a view to stimulating their recognition of "General Motors" as a stock that figuratively belongs to the same club and smokes the same brand of cigars as Standard Oil and the other big fellows. Although apparently wishing to break into this social set, General Motors nevertheless is set up in invidious comparison with the others.

On a nice yellow sheet, the Securities company gives an elaborate statistical table "showing earning power of General Motors securities as compared with 14 leading industrials for the fiscal year ending 1909." And the table makes those 14 industrials look sick, all the way through the list, from American Car & Foundry and American Sugar Refining down to Steel and International Harvester. The best of them, Standard Oil, only shows 13.2 per cent. "earning power," while General Motors, according to the figure inserted in the table, has 34.7 per cent. "earning power." On a blue sheet 14 railroad stocks are dragged to shame in a similar way, and the triumph of General Motors is even more complete, as out of the list the best showing is only 10.1 per cent., by Lackawanna, while again for General Motors the 34.7 per cent. "earning power" mark is given.

Crystallizing the purport of the tables, each bears on its outside front cover a table of selected stocks showing "terrific shrinkage" from June 20 to July 25, while "during the same period General Motors

advanced 5 points," with "advanced" in italics.

Another sheet, headed by the words, "Pin this up in your directors' room," takes a slam at Union Pacific again, as follows:

"An investment of \$10,000 in Union Pacific one year ago this spring would now be worth only \$8,000, while \$10,000 invested in General Motors common at that time would now be worth \$62,500."

On such meat as this are the brokers, the bankers and the investors fed until they shall come to regard General Motors as one of those familiar "industrials" of which it is only necessary to mention the name without having to go to a lot of bothersome explanations of what it is, even if, unlike the stocks with which the tables compare it, it is not listed in the New York Stock Exchange or does not figure importantly in the "Curb" trading, but is among the "locals" in a Detroit paper.

The campaign of the Securities company is wide and vigorous, making the one fact stand out boldly that General Motors shares are for sale and are intended to have their resting places in the lockers and vaults of bankers, brokers and the public. The tables give the total outstanding preferred and common stock as \$25,539,730, leaving \$34,460,270 worth of General Motors stock, out of the total \$60,000,000, available for delivery to those persons who can be persuaded to give up their cash for it. It is no trifling job to sell almost \$36,000,000 worth of lithographs at any time, but if an energetic campaign can accomplish it or can turn even a fair proportion of such paper into spendable coin, the effort is vain.

Supplementing the work of the Securities company, W. C. Durant, the merger "wizard," has given extensive publicity to a "preliminary report" spontaneously tendered to R. G. Dun and to Bradstreet's, showing the flourishing condition of the Buick Motor Co., which is the chief of the General Motors constituents. Durant declares that the company "would ordinarily prefer to submit a complete and carefully audited statement showing its financial condition as of September 30, the close of the fiscal year," but finds reasons to lay bare the preliminary report instead. The total assets of the concern are given as \$17,445,964.50, with liabilities aggregating \$7,016,012.28, leaving a net total in the business of \$10,429,952.22, on July 1. The unsold finished cars at the company's branches numbered 2,316, which the report asserts is "less than 30 days' requirements of the branches."

An incidental revelation of trade interest is made in the item of the report that shows an investment of \$50,000 by the Buick Motor Co. in the Brown-Lipe-Chapin Co., of Syracuse, N. Y., although at the time of the latter's organization with \$1,500,000 capital last January a strong denial was made that any General Motors interests were represented in it in any way.

### THE WEEK'S INCORPORATIONS.

Hazleton, Pa.—Bailey Motor Co., under Pennsylvania laws, with \$5,000 capital.

Dover, Del.—Dover Garage Co., under Delaware laws, with \$5,000 capital; to do general garage business.

Atlanta, Ga.—Primo Motor Car Co., under Georgia laws, with \$150,000 capital; to manufacture automobiles.

Dayton, Ohio—The Hosler Overland Sales Co., under Ohio laws, with \$40,000 capital. Corporators—E. G. Hosler and others.

Louisville, Ky.—Broadway Auto Co., under Kentucky laws, with \$10,000 capital. Corporators—Edward Hagg, O. S. Motteler and W. E. Huffaker.

Minneapolis, Minn.—Alco Motor Sales Co., under Minnesota laws, with \$50,000 capital. Corporators—M. R. Nymna, R. J. Powell and H. W. Volk.

Ann Arbor, Mich.—Huron River Mfg. Co., under Michigan laws, with \$100,000 capital. Corporators—D. C. Chipman; C. E. Hiscock, G. Seybold and others.

Milwaukee, Wis.—Highland Motor Garage Co., under Wisconsin laws, with \$1,000 capital. Corporators—C. W. Arndt, S. W. Glover and A. F. Eckstine.

Chicago, Ill.—Elmore Motor Co., under Illinois laws, with \$1,500 capital; to deal in automobiles. Corporators—Geo. W. Goss, Ida S. Goss, Edmund H. Griffin.

New Bremen, Ohio—Case Motor Car Co., under Ohio laws, with \$50,000 capital. Corporators—J. H. Grothaus, J. F. Lanfersich, Edmund Grothaus, O. J. Boesel.

Indianapolis, Ind.—The Mais Motor Truck Co., under Indiana laws, with \$500,000 capital. Corporators—A. W. Markham, E. W. Spencer and Charles Fisher.

Atlanta, Ga.—Motor Sales Co., under Georgia laws, with \$10,000 capital; to deal in automobiles. Corporators—A. E. Johnson, Frank L. Eskridge, Lewis E. Aymard.

Cleveland, Ohio—The Consolidated Motor Car Co., under Ohio laws, with \$4,000,000 capital. Corporators—G. A. Howell, L. R. Canfield, Thos. D. Canfield and J. L. Bradley.

Topeka, Kan.—Ford Motor Sales Co., under Kansas laws, with \$10,000 capital. Corporators—E. T. Guymon, Francis Guymon, A. H. Lewis, J. C. Petro and C. M. Williams.

St. Louis, Mo.—Van Cleve Motor Co., under Missouri laws, with \$6,000 capital. Corporators—G. B. Van Cleve, T. S. McPheeters, Jr., C. M. Polk and Harry F. Van Cleve.

Sandusky, Ohio—Star Garage & Taxicab Co., under Ohio laws, with \$20,000 capital; to operate automobiles for hire. Corporators—T. J. Herman, J. E. Herman, C. C. Herman, W. L. Finnegan.

Newark, N. J.—New Jersey Overland Co., under New Jersey laws, with \$100,000 capi-

tal; to manufacture automobiles. Corporators—W. F. Acker, H. Heinsheimer, R. D. Crocker, H. H. Poole, all of Newark.

Ft. Wayne, Ind.—Ft. Wayne Automobile Mfg. Co., under Indiana laws, with \$20,000 capital; to manufacture automobiles. Corporators—L. J. Wilrath, G. T. Fox, W. H. Rohan, G. P. Dudenhofer, and others.

Rochester, N. Y.—Hazard Motor Mfg. Co., under New York laws, with capital; to manufacture automobile engines, etc. Corporators—E. C. Hazard, G. E. Hazard, G. R. Coates, J. F. Allen, W. B. Crittenden.

Cortland, N. Y.—Southwick Motor Car Co., under New York laws, with \$10,000 capital; to deal in automobiles and supplies. Corporators—L. B. Southwick, D. G. Southwick, Harold Nichols, all of Cortland, N. Y.

New Albany, Ind.—Borgerding Motor Car Co., under Indiana laws, with \$25,000 capital; to conduct general garage business and deal in automobiles. Corporators—Hermann H., Harry E. and Leonard B. Borgerding.

Jersey City, N. J.—Madison Auto Co., under New Jersey laws, with \$25,000 capital; to manufacture and deal in automobiles. Corporators—Walter W. Stewart, William S. Rowland, Charles W. Grant, all of Jersey City.

Knoxville, Tenn.—Blevins-Garrity Motor Co., under Tennessee laws, with \$50,000 capital; to manufacture and deal in automobiles. Corporators—R. C. Blevins, J. A. Dickey, S. S. McCormick, C. G. Avin, Geo. W. Robertson.

Wichita, Kan.—Taxicab & Auto Baggage Co., under Kansas laws, with \$20,000 capital; to engage in the express business and to operate taxicabs. Corporators—Geo. H. Bradford, D. M. Dale, R. B. Campbell, G. R. Hiscock.

Philadelphia, Pa.—The Great American Automobile Co., under Pennsylvania laws, with \$1,500,000 capital; to manufacture automobiles and trucks. Corporators—Samuel Quinn, Charles N. Lee, L. H. Van Briggie, H. W. Davis.

Utica, N. Y.—Electric Horn & Specialty Co., under New York laws, with \$5,000 capital; to manufacture a patent electric automobile horn. Corporators—George Fulman, M. J. Carroll, Wm. F. Carroll, Alfred Manny, D. A. Sopham.

Peru, Ind.—Carson Garage & Auto Co., under Indiana laws, with \$15,000 capital; to deal in automobiles and accessories, and to operate a garage. Corporators—E. Carson, E. L. Conner, Margaret E. Carson, Margaret E. Conner.

Ft. Wayne, Ind.—Fort Wayne Automobile Mfg. Co., under Indiana laws, with \$25,000 capital; to manufacture and operate automobiles. Corporators—G. P. Dudenhofer, H. E. Buecker, G. T. Fox, W. H. Rohan, C. J. Romary, A. C. Harger.



**IN THE RETAIL WORLD.**

John V. Schenck has opened a garage at 179 Cannon street, Bridgeport, Conn.

Coffey & Irwin is the style of a new firm which has entered the automobile business in Oriet, Iowa.

Fahay & Rule are erecting a garage in Petersburg, Ill. The building will be of brick, 44 x 110 feet.

A garage to cost \$16,000 is in the course of erection on Lake street, Paterson, N. J. Joseph Martin is at the head of the enterprise.

The Kelly Automobile Co. has opened a garage at 215 Chapel place, Youngstown, Ohio. Stearns and Henry "35" cars will be handled.

The Columbia Taxicab Co. is building a big garage on Delmar avenue, St. Louis, Mo. The structure will be 120 x 200 feet, of brick and steel.

Roy M. Kingsland and Th. Bass have formed a partnership and will open a garage in Canton, Ill. The structure will be erected on North Main street.

Westbrook, Me., soon will have its first garage. Alexander Spiers, in connection with several other Westbrook men, has formed the Westbrook Garage & Machine Co. for the purpose.

Charles Sanders has purchased a half interest in the Buick Motor Co.'s branch at Columbus, O. Sanders formerly was a salesman for Bottorff & Spurgeon, who owned the garage.

Emerson & Orme is the title of a new firm which has been formed in Washington, D. C. The salesrooms are on H street, between 14th and 15th streets, and will form a repository for Apperson and Regal cars.

The Northwestern Stearns Co., Minneapolis, Minn., has been purchased by the F. B. Stearns Co., of Cleveland, Ohio, and henceforth will be conducted as a branch. Joe Littlewood has been placed in charge.

The Dover Garage Co., which recently was chartered with a capital stock of \$5,000, has moved into its new garage at Loockerman and King streets, Dover, Del. The building is of brick with plate glass front.

Under the style the Marathon Auto Co., the Southern Motor Works have opened a retail store at 1211 Broadway, Nashville, Tenn., where Marathon cars will be shown. E. Fisher Cole has been placed in charge of the branch.

Capitalized at \$10,000, the Lenawee Auto Sales & Garage Co. has entered the automobile business in Adrian, Mich. W. C. Schoolcraft is the moving spirit and will manage the company. Overland cars are to be featured.

Charles E. Baker and Chas. H. Gowin, formerly of Cheboygan, Mich., have "opened up" in Detroit under the style the Warren-Detroit Garage & Sales Co. The

salesrooms of the new concern are at 736-40 Woodward avenue.

Sixty-three automobiles were destroyed by fire on Friday last, when the garage of the Maxwell-Briscoe Co., on Lark street, Albany, N. Y., was burned to the ground. The loss is estimated at \$100,000 and is partly covered by insurance.

At a cost of about \$30,000 another large garage and salesroom soon will be added to the "automobile row" of Chicago, Ill. It will be located at 2600 Michigan avenue and will be occupied by the Interstate Co., with Harvey T. Weeks as manager.

Under the style the Highland Motor Garage, a new company has been incorporated in Milwaukee, Wis., with A. F. Eckstein as general manager. The concern will open a garage, livery and salesroom for second-hand cars on 27th street.

The Swingley Automobile Co., of St. Louis, Mo., has been absorbed by M. M. Blake & Co., an Illinois corporation, that will locate at 2007 Locust street. Ben Swingley remains in charge as manager, and will continue to exploit Stoddard-Dayton cars.

Ground has been broken for a garage and complete machine shop at the corner of A and Fourth streets, Chillicothe, Ohio, which will be occupied by Milton Stiles, of Ventura, Ohio. The building will be 50 x 140 feet and be made exclusively of corrugated iron.

Work has been started on a new garage for George W. Chandler, at 298 Fifth street, Milwaukee, Wis. The building will be 50 x 150 feet, and will accommodate 20 automobiles and 60 horses, as Chandler will conduct a livery stable in connection with the garage.

Deeds & Hirsig, who recently bought the plant of the Volunteer Carriage Co., Nashville, Tenn., have taken over the automobile agencies formerly held by the Howard-Cregor Co. The offices and salesrooms of the Deeds & Hirsig Carriage Co. are located at 150 Second avenue.

The Maxwell-Briscoe building, a five-story structure at the corner of Massachusetts avenue and Newbury street, Boston, Mass., was completely destroyed last week by a gasoline explosion and a fire which followed. The total loss is placed at between \$150,000 and \$200,000.

The Columbia Automobile Co., which just has been formed in the Missouri town of that name, has opened salesrooms at 108 South Ninth street, where it will display second-hand cars, accessories and supplies, as well as do a renting business. F. W. Niedermayer is president and Ray Dunlap manager.

Fire originating from an unknown cause last week destroyed several buildings in Pittsburg, Pa., among which were two private automobile and one public garage, the latter, owned by T. L. Hammett. It con-

tained five machines, valued at \$13,500, all of which were burned, while six cars perished in the private garage, their loss also mounting into the thousands.

Organized with the avowed purpose of developing the motor truck business in New Jersey, the Commercial Maintenance and Motor Co. has been formed in Newark, N. J. Grabowski trucks will be handled, although the garage will be open to all kinds of commercial wagons for storage, repairs, supplies and maintenance. The garage and salesrooms are at 16-18 Shipman street. W. T. Osborne is the general manager.

**Changes Among Prominent Tradesmen.**

J. E. Winney has been appointed sales and advertising manager of the Krit Motor Car Co., Detroit. Formerly he was general contract agent for the Bell Telephone Co. in that city.

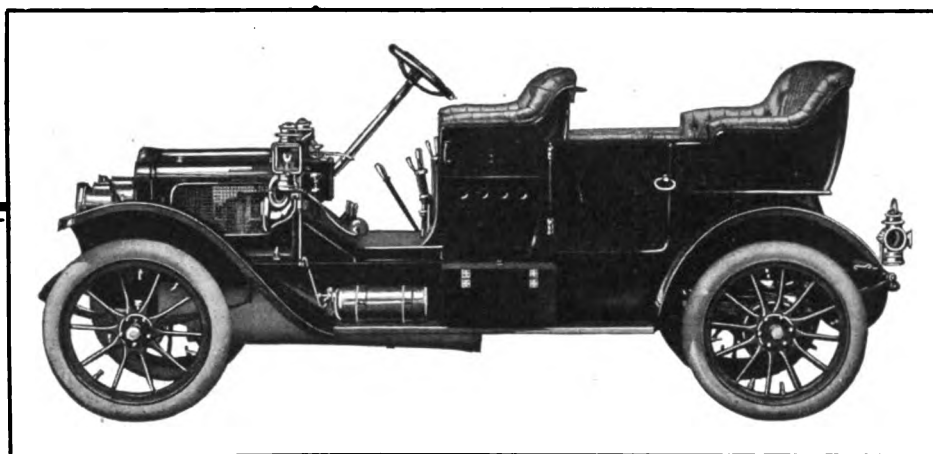
Curtis Davis has been appointed advertising manager of the Lion Motor Sales Co., Detroit, which will market the output of Lion cars. Previously Davis was with the Washington Times and also had served on the New York Times and the New York Journal.

Clermont Rider, of the Rider-Lewis Motor Car Co., Anderson, Ind., has disposed of his stock in the concern to take a stock interest in the Bartholomew Company, of Peoria, Ill., which makes the Glide car. He is succeeded as secretary of the Rider-Lewis company by Percy Doyle, and will represent the Bartholomew company in Kansas.

J. C. Zimmerman, former manager of the Chicago branch of the Fisk Rubber Co., but more recently with Michelin until joining the forces of the Federal Rubber Co., of Milwaukee, Wis., has been made manager of the Federal company's branch in Chicago, with headquarters at 1330 Michigan avenue. His new position is in the nature of a promotion.

A. E. Woodworth has been appointed factory manager of the Cole Motor Car Co., Indianapolis. With one exception, he was the oldest employe, in point of service, of the Buick Motor Co., Flint, Mich., of which he was one of the superintendents. Before leaving Flint he was tendered a banquet by his comrades, who presented him with a gold mounted elk's tooth as evidence of their regard.

Reginald Wade, better known as "Jack" Wade, has been made general sales manager of the Grout Automobile Co., Orange, Mass., taking the position made vacant by the death of Vice-President Walter J. Gould in an automobile accident at Manchester, N. H., several weeks ago. Wade is a newspaperman and has been in the automobile department of the Boston Journal since the commencement of that department.



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#### Trading on the Profits of Others.

"Cutting melons" and declaring fat dividends probably constitute the most cheering and most satisfactory feature of commercial life; the larger the "melons" and the more frequent the dividends the greater is the satisfaction. Of course, not a few "melons" have been cut and not a few snug dividends have been declared by some of those engaged in the automobile industry, and the news of them has made cheerful reading and caused many eyes to open wide and many palms to itch. News of such unbounded prosperity has helped root more deeply the popular notion that the automobile industry is a new Eldorado and that anything in the form of a motor car is "as good as gold." Some of those who need money, or more of it, have not been slow to turn or to try to turn such news to their advantage.

It long has been the stock in trade of company promoters, but more recently it

is being employed by going companies or companies that fancy they are going and that require or desire more money to accelerate their movement in one direction or another. The mails are so filled with their literature that it almost appears as if the sale of their shares and not the manufacture of automobiles or their appurtenances is their chief business. The literature points glowingly to huge "melons" cut or large dividends declared by some of those identified with the automobile industry, and pictures the prodigious profits that have been made from modest investments—profits which the seller of shares prophesies, if he does not promise, will be duplicated by those who exchange money for his paper. Comparisons are made with long established securities, for which there is at all times a ready market, to their great disadvantage; it is made appear that only foolish people will purchase such securities when the automobile paper is obtainable for so much less money and pays so very much more profit. The fact that many of the "melons" cut and the dividends declared merely were stock dividends—dividends paid in lithographed paper for which no real market exists—never is mentioned.

It is a very regrettable and discomfiting state of affairs, which ultimately cannot fail to react on the industry as a whole. Perhaps it is not possible entirely to prevent it, but it were well if less is said and printed of the "melons" and dividends of the automobile industry. There are many companies whose profits are a sealed book; there are others whose financial returns are almost regularly made public property and, as now is made plain, their figures and prosperity are being traded on by others for the purpose of promoting the sale of paper. Anything that may be done to check or discourage that sort of thing will be for the good of the industry.

#### Cars Judged by Their Equipment.

Growing discernment on the part of the average automobile buyer is affording the manufacturer no little occasion for reflection, particularly in respect to its bearing on the equipment problem. The increasingly important position of the speedometer furnishes an important element in this consideration. The growing use of speedometers is a matter of common observation, while it is a particularly significant fact that whereas until recently the speed indi-

cator was regarded as a luxury to be added at the option of the motorist, at the present time not less than twenty American builders are including such instruments in the specifications of the cars which they will market during 1911.

This tendency to include speed indicators in the stock equipment, which is observed to apply to cars ranging in price from \$1,500 upward, is expressive of a two-fold development in the market. Not only is it an acknowledgment on the maker's part of the demand for completeness in the outfitting of the car, but it also confirms the popular opinion that the speedometer is an essential feature in motoring.

That the mere advantages of knowing at all times at exactly what speed the car is traveling, and distances covered, should be responsible for so general an appreciation of speedometer value need not for a moment be supposed. The motorist soon becomes accustomed to depending on his speed indicator in an almost unconscious manner. Through the speed indications he obtains a comparative measure of engine performance, both as to speed and power; in covering known distances, combined observation of watch and speedometer enable him to gauge his speed properly to meet engagements or to time his arrival at a given destination. Through observation of odometer readings, he obtains a check on his supplies and other maintenance costs, fuel, oil and tires; and in touring it enables him to follow his map with satisfactory accuracy.

The movement for more complete car equipment, which is of particular interest to the manufacturer at this time, has its own peculiar meaning in relation to the sales business. The surreptitious free equipping of cars by dealers who were restrained from openly cutting prices long has been a thorn in the flesh of the maker. By taking the equipment question into his own hands, the latter not only disposes of an insidious evil but also provides the buyer with a more uniformly satisfactory equipment than otherwise might fall to his lot. For any method of equipment devised by the dealer must be tainted with his own interests and subject to whatever economies he safely can inject into it.

From the owner's standpoint, the growth of the stock equipment affords a measure of car values by a process of secondary, though by no means illogical, reasoning. The average motorist of the day is as fa-

miliar with the better known accessory brands as he is with car manufacturers names and car reputations. Therefore he learns to discriminate between equipment which is installed with the honest purpose of enhancing the value of the car and that which is included merely to add to its apparent worth as set forth in advertising literature. Lamps, horns, wind shields and other attachments of good reputation add to the value of the car in the estimation of the "wise" element in the motoring public, and so does the adoption of a well known brand of speedometer.

So great is the wisdom of the modern buyer that he is thoroughly capable of making a mental appraisal of accessory values with a view to determining their relative proportion to the selling price of the car. Thus, manifestly cheap equipment installed upon a high-priced car causes the machine to be viewed with more or less suspicion, while expensive accessories cannot be relied upon to force the sale of a low-cost product. In the selection and adoption of the speedometer the wiser manufacturers recognize an added opportunity for strengthening the selling value of the car and at the same time of establishing its rating, so to speak, in the field.

#### Body Possibilities in Metal.

Perhaps no industry has benefited more from the advancement of the art of sheet metal working than has the automobile business. At the same time, it may not be putting it too strongly to suggest that the average motor car manufacturer even yet is neglecting a few golden opportunities in this direction. The most natural thought in this connection when the application of rolled and pressed metal in other industries is considered is that the steel body has not begun to receive its due, despite the fact that not a few have been and are being produced.

It is also true that many of the bodies so produced and others on which stamped panels or other parts are used do not equal either in appearance or serviceability the results obtained by the older and laborious processes of fashioning the wooden body. Many authorities are of the opinion that as good results never can be obtained with metal as with wood, but it must be admitted that there is associated with the delicate and artistic craft of the cabinetmaker and fine carriage builder a certain affection which no other material inspires. That this

## COMING EVENTS

August 19-20, New York City, N. Y.—Motor Racing Association's 24 hours' race at Brighton Beach mile track.

August 20, Columbus, O.—Columbus Automobile Club's race meet.

August 23, Cheyenne, Wyo.—Cheyenne Motor Club's race meet on motordrome.

August 24-26, Omaha, Neb.—Omaha Motor Club's three days' endurance run.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 30, Washington, D. C.—Automobile Club of Washington's hill climb.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 21-23, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Norristown, Pa.—Norristown Automobile Club's race meet.

September 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 20-22, Atlanta, Ga.—Atlanta Automobile Association's meet at motordrome.

is largely a matter of association, however, is a conclusion based on the notion that true art can find expression in any medium.

What has been done in the application of metal work to the interior trim of modern fireproof buildings affords an example in point. The all-steel railway cars which rapidly are finding their way into use furnish an even better illustration of what may be done in automobile building. In many instances the designer still is hampered by the traditional inclination to imitate as closely as possible the effects and even the appearance of the older materials. In a few instances, however, results have been obtained which show that satisfactory and even artistic as well as serviceable effects can be obtained with all metal finishes.

In its application to the mechanism of the car, sheet metal is receiving constant and appreciative attention; its use in body work would seem to be susceptible to even more extended use, however. It may be going a long way into the future to foresee the all-metal limousine or cab, or the convertible body of all-metal construction which may be made either open or closed at will. The advocates of the wood may urge that to obtain pleasing and permanent results with metal is a practical impossibility, but it must be remembered that the effects now obtained with wood are derived from centuries of experience with the material and many decades of experience in the construction of coachwork. What an equivalent period of development with modern methods will show it is not difficult to predict.

**MRS. FISHER GIRDLES THE GLOBE**

**New Jersey Woman Completes the Long Journey in 13 Months—Some of her Varied Experiences.**

The only woman who ever went around the world in a motor car completed her journey on Tuesday, 16th inst. She is Mrs. Harriett Clarke Fisher, of Trenton, N. J., who, accompanied by her nephew, Harold Fisher Brooks, a maid and a man servant, left her home city on July 19, 1909, in a 40 horsepower Locomobile on globe girdling intent.

Although making no attempt at speed, Mrs. Fisher's party completed the trip one month ahead of schedule, the journey occupying 13 months almost to a day. The total distance traveled was 25,000 miles, of which 18,000 were made in the car and the remainder by boat. The party brought back with them a Ceylon monkey and a Japanese spaniel, in addition to the Boston terrier which made the entire trip, the three animals having become quite friendly with each other.

Starting from Trenton, Mrs. Fisher came to New York, where a reception was given in her honor at the Automobile Club of America. The party then embarked for England and spent three months in Europe. From Italy the globe girdlers sailed for Bombay, India. This land of mystery was explored quite thoroughly, and the people and customs of the country impressed Mrs. Fisher more strongly than those of any other place she visited. She contemplates returning there for a more extensive study of the people and conditions. The roads in India, where the party covered 3,000 miles, were quite good. From Ceylon the tourists sailed for Japan, where some thrilling experiences were encountered on the narrow roads, and mountain passes. The country is not suitable for extensive touring. While in the Flowery Kingdom Mrs. Fisher was received by the Mikado. After landing at San Francisco the party crossed the continent and suffered many hardships on the bad roads.

At Tarrytown, N. Y., a welcoming party met Mrs. Fisher and escorted her to the city, where she made a brief stop at the Locomobile branch, Broadway and 76th street. She then resumed her journey, which ended at Trenton on Tuesday night. At its meeting that night, the Trenton common council passed resolutions of congratulation for Mrs. Fisher.

Aside from broken springs due to the abominable roads no mechanical trouble was experienced. The party carried a complete camping outfit and spent many nights in the open rather than put up with the poor hotel accommodations. Mrs. Fisher, who operates a large anvil factory in Tren-

ton, is known as the "anvil queen," and made the trip purely on her own initiative.

**Twenty Clean Scores in Long Island Run.**

Although the award of individual prizes in the two days' Long Island reliability run of the Brooklyn Motor Vehicle Dealers' Association, which ended the 10th inst., had not been announced within seven days thereafter, it is known that twenty of the thirty cars in the competing class received perfect scores. A. R. Pardington, referee, found that so much time would be required for making up the complete awards that he gave out the clean score list several days in advance of the full announcement. The perfect twenty are as follows:

I. C. Kirkham, Columbia; L. A. Rourk, Haynes; P. Mahoney, Locomobile; W. H. A. Bruns, Hudson; H. G. Martin, Interstate; P. J. McDermott, Stevens-Duryea; E. T. Bloxham, Maxwell; William Braden, Winton; Jacob Stark, Auburn; J. W. Mears, S. G. V.; F. A. Ainslee, E. M. F.; C. Smith, Kline; Arthur Gross, Speedwell; G. M. Wagner, Columbia; Emil Fiedler, Chalmers "30"; Leo Anderson, Midland; R. Smidt, Haynes; C. Fleming, Maxwell; W. J. Houldcroft, Crawford; Ellis Kulp, Pullman.

**Parry Makes Amends and is Restored.**

It came out only this week that at a meeting of the A. A. A. Contest Board on July 21 action had been taken revoking the disqualification of the Parry Auto Co. from participation in sanctioned contests and reinstating it to good standing. In its application for reinstatement the Parry company offered satisfactory proofs that in refusing to abide by the Contest Board's decisions in the 1910 Glidden Tour and in applying for an injunction to the courts it was in ignorance of the contest rules which provide recourse for contestants with grievances. In consideration of the withdrawal of all court actions and the retraction of all derogatory statements the application for reinstatement was granted.

**Georgia Enacts Law Without Speed Limit.**

The Georgia legislature, which now is in session, has enacted a new automobile law, which will become effective September 1st. It imposes a perpetual registration fee of \$2, but does not require licenses for drivers. Non-residents are exempted for a period of thirty days. Except a requirement of six miles at crossings, bridges, curves, etc., no speed limit other than that which is "reasonable and proper" is provided for.

**Record Breakers Ahead of Their Schedule.**

L. L. Whitman and E. I. Hammond, who are attempting to lower the transcontinental record in a Reo "30," left Battle Mountain, Nev., on Tuesday afternoon, 16th inst., at that point being 8½ hours ahead of their schedule. Whitman's schedule calls for an eleven days' trip.

**NEW YORK DEFINES RECIPROCITY**

**Its Residents Must Have Unqualified, not Half-Portion, Freedom in Other States —Far-reaching Decision.**

Attorney-General O'Malley, of New York state, on Tuesday last, 16th inst., threw what is likely to prove a fresh and fiercely burning brand into the reciprocity warfare between the several states. In an official opinion he ruled that the only non-residents who are entitled to the free and unrestricted use of the highways of the Empire State are the citizens of those states which extend to New Yorkers the unqualified and unrestricted freedom of their roads.

New Jersey, as is well known, was the first to put up the bars against the rest of the nation, and long has extracted an "admission fee" from non-residents and is the only state that does not extend even limited reciprocity. The other Eastern states permit the free use of their roads for limited periods only, few of them exceeding fifteen days.

As the exemption provided by New York's new law, which went into effect on the first inst., applies "to the motor vehicles owned by a non-resident of this state only to the extent that under the laws of the foreign country, state, territory or federal district of his residence like exemptions and privileges are granted to motor vehicles registered under the laws of and owned by the residents of this state," Attorney-General O'Malley's decision is in effect that a reduced "tourist fee" or exemptions for limited periods only is not "like exemption," a point which, undoubtedly, is well taken.

It means that cars owned by residents of all other states must be registered in New York state at the prevailing rate of \$5 to \$25 per year, according to the horsepower, and otherwise conform to the provisions of the New York law.

**Disabled Driver Debarred From Racing.**

Establishing a precedent in the administration of the rules governing sanctioned automobile racing in this country, the Contest Board of the A. A. A. has revoked the registration card issued to L. M. Dustin on the ground of physical disability. This is the first action of the kind the board ever has taken, and indicates a firm disposition to prevent further hazards in the form of incapacitated drivers attaching to the profession of motor racing. The A. A. A. contest board also has taken its first notice of amateurism by declaring forfeited the amateur status of Harvey Ringler and R. E. Beardsley for having accepted cash. Their re-registration and transfer to the professional class has been ordered.



**ROBERTSON AGAIN BEATS DE PALMA**

**Defeat is even More Decisive than in Previous Match—Hour Race Provides an Accident and a Surprise.**

If Ralph DePalma really desires to lower George Robertson's colors he will have to get a larger and faster car than the Fiat "Cyclone" to turn the trick, for on Saturday last, 13th inst., at the Motor Racing Association's second matinee meet at the Brighton Beach track, Robertson with his big Simplex administered another decisive trouncing to the Italian star in a match race. It was the second defeat within a few weeks that DePalma has received at the hands of the blond and smiling Robertson, and this time there was nothing fluky about it, for neither man had trouble of any kind.

In the time trials Robertson and DePalma were the only entrants, and, of course, the former showed greater speed. When he did not have Robertson to contend with, however, DePalma was up to form and scored two victories, and incidentally broke two track records—those for five and ten miles. Another record was erased from the slate in the hour grind, which furnished a double surprise in the person of Jean Juhasz, S. P. O., being returned the winner, and in a new mark of 59 miles. No Brighton meet is complete without at least one fence-breaking exhibition, and Saturday's affair was no exception. E. H. Parker, Fiat, supplied that thrill and came off unscathed. For driving the wrong way on the track Robertson was suspended for 30 days, but after a conference among the officials the sentence was revoked after he had apologized to the referee and promised to be good in the future and not again repeat the dangerous offense.

Although the Robertson-DePalma mill was the chief magnet it did not draw as well as on the occasion of their first meeting, about 8,000 people being present, while between 700 and 800 cars were parked about the grounds. The distance was three miles each heat, with standing starts. In the first heat Robertson had the pole, and after a good break he opened up a gap of 25 yards, which he maintained to the finish, winning easily in 2:43:67-100. The second heat again saw Robertson next the rail. He took the lead and toyed with DePalma, allowing the latter to draw up abreast and then pulling away from him with ease, and winning by 35 yards in 2:43:49.

In the mile trials Robertson scored 52:71-100 seconds, as against DePalma's 54:76-100. The track record is 52:60-100, made by DePalma.

Eight veterans of previous 24-hour grinds started in the hour race. Parker, Fiat, immediately took the lead and set a hot

pace, which gave him a lap on Disbrow, Marion, in the seventh mile. After leading from the start, Parker blew a tire in the twenty-third mile on the first turn. The car went through the outer fence and uprooted a tree, but neither man nor machine was injured. Owen, Rainier, succeeded Parker as the leader and continued the fast pace, but Parker returned to the fray in 20 minutes and fought desperately to regain his lost distance, but to no purpose. Shortly after the fiftieth mile Owen blew a tire at the identical spot where Parker's accident occurred, but kept to the track. During the replacing Juhasz, S. P. O., who was trailing him, assumed the lead. He managed to hold it to the finish, reeling off 59 miles, three miles better than the old record. Owen was second with 56 miles, and Batts, S. P. O., was third with the same number.

In the ten miles, 301-600 class, DePalma led all the way and belted the old figures of 9:50 down to 9:31:51. Parker, Fiat, was second. Again in the five miles, free-for-all DePalma shattered his old mark of 4:43 and replaced it with 4:36:60. Disbrow, National, beat out Kulick, Ford, for second. The summaries:

Mile time trials—George Robertson, 90 horsepower, Simplex, time, 0:52:71-100; Ralph DePalma, 60 horsepower, Fiat, time, 0:54:76-100.

Pursuit race—Won by Frank Kulick, Ford; second, White, Staver. Distance, 3 $\frac{1}{4}$  miles. Time, 3:29 $\frac{1}{4}$ .

Ten miles, not exceeding 300 cubic inches—Won by Jean Juhasz, S. P. O.; second, E. H. Sherwood, Mercer; third, Frank Kulick, Ford. Time, 10:40:58.

Ten miles pursuit—Won by Jean Juhasz, S. P. O.; second, Joseph Taylor, Correja; third, Will Endicott, Cole. Time, 10:27:87.

Ten miles, 301-600 cubic inches—Won by Ralph DePalma, Fiat; second, E. H. Parker, Fiat; third, L. A. Disbrow, National. Time, 9:31:51.

Three miles, match, Ralph DePalma, 60 horsepower, Fiat, vs. George Robertson, 90 horsepower, Simplex—First heat won by Robertson. Time, 2:43:67. Second heat and match won by Robertson. Time, 2:43:49.

Ten miles, pursuit—Won by L. A. Disbrow, National; second, Leo Anderson, Midland; third, Ralph DePalma, Fiat. Time, 9:55:58.

Five miles, free-for-all—Won by Ralph DePalma, Fiat; second, L. A. Disbrow, National; third, Frank Kulick, Ford. Time, 4:36:60.

One hour race—Won by Jean Juhasz, S. P. O., 59 miles; second, W. H. Owen, Rainier, 56 miles; third, M. P. Batts, S. P. O., 56 miles; fourth, Frank Lescault, Palmer-Singer, 56 miles; fifth, Jack Rutherford, Stearns, 55 miles; sixth, Will Endicott, Cole, 53 miles; seventh, L. A. Disbrow, Marion, 51 miles; eighth, E. H. Parker, Fiat, 48 miles.

**OLDFIELD SHOWS AT WORCESTER**

**Establishes a Track Record, of Course, but Meets a Tartar in Handicap Races—Orndorff Fools the Invaders.**

Having made quite a name for itself as a promoter of hill climbs, the Worcester (Mass.) Automobile Club took a new tack last week and gave Worcester its first taste of track racing at the Greendale track, on Thursday, 11th inst. It was an Oldfield circuit meet, which aggregation, by the way, now includes Lewis Strang, and, of course, they celebrated their first visit to the Wire City by leaving a new track record after them. Oldfield himself was the hero of the day, and in the Benz car romped around the track in 1:09 $\frac{1}{4}$ , which is 1 $\frac{1}{2}$  seconds better than Fred Marriott's mark. Oldfield and Strang did a very thrilling little see-saw in the five miles open and made a cyclone wind-up, Oldfield winning by half a length. Time, 6:52 $\frac{1}{2}$ .

Strang, who drove a Chalmers, was an easy winner in the three miles pursuit; Orndorff, Chalmers, getting a very bad start, never was able to recover his lost ground. Time, 6:52 $\frac{1}{2}$ . Orndorff, who was a local favorite, got 50 seconds allowance in the three miles handicap, which proved just sufficient to make an exciting finish. He stayed in front all the way and arrived 20 feet ahead of Oldfield, Knox, who drove from scratch, and was rapidly overhauling him. Strang was third. Time, 4:11 $\frac{3}{4}$ . Although they cut the handicaps for the free-for-all the reduction was not sufficient to prevent Orndorff again finishing first from the 40-second mark. Strang and Orndorff had an interesting fight, but the latter pulled away from the visitor and beat him by 300 yards. Oldfield, Knox, took third. About 2,000 people were present.

The summaries:

Three miles, handicap, free-for-all—Won by H. C. Orndorff, Chalmers (40); second, Lewis Strang, Chalmers (35); third, Oldfield, Knox (10). Time, 4:15 $\frac{1}{4}$ .

Five miles, 600 cubic inches and under—Won by Oldfield, Knox; second, Strang, Chalmers; third, Orndorff, Chalmers. Time, 6:52 $\frac{1}{2}$ .

Three miles pursuit—Won by Lewis Strang, Chalmers; second, H. C. Orndorff, Chalmers. Time, 4:06 $\frac{3}{4}$ .

Three miles, handicap, 600 cubic inches and under—Won by Orndorff, Chalmers (50); second, Oldfield, Knox (scratch); third, Strang, Chalmers (35). Time, 4:11 $\frac{3}{4}$ .

Two miles, 160 cubic inches and under—Won by G. W. Largess, Hupmobile; second, H. C. Orndorff, Hupmobile. Time, 4:09 $\frac{1}{4}$ .

Time Trials—One mile, Oldfield, Benz, time, 1:09 $\frac{1}{4}$ ; Strang, Chalmers, 1:20 $\frac{3}{4}$ . Two miles, Kerscher, Darracq, time, 2:25 $\frac{1}{2}$ .

**MUNSEYITES REACH NEW LONDON**

**"Historic" Tourists Safely Pass "Landmarks"—Of Twenty-nine Starters  
Four Penalized in Two Days.**

Amid a drizzling rain, punctuated by fitful showers, the second of Frank A. Munsey's tours started early Tuesday morning, 16th inst., from Philadelphia. Seven o'clock was too early for anybody except a few intimate friends of the starters to be on hand, so the sparse spectators, as last year, were made up principally of policemen and factory hands on their way to work. Of the thirty-one entrants twenty-nine got

ing to the towns through which the contestants will pass, the roads selected are of the finest to be found in each State which the cars will enter." In addition it was noted that "conditions governing the tour, with regulations of speed according to the price and power of the cars, are so perfect that the smallest and most economically priced contestant has as good a chance to win as the great, high-priced, high-powered car."

There were only two women in the party, both daughters of Frank Hardart. Next to Strang, perhaps, the best-known driver was G. M. Wagner, in the Columbia, who was in the New York-Atlanta tour and the All-Connecticut run in a car of that make. Gary Carter was in the Munsey affair of

A. T. Bailey, Corbin; Walter Donnelly, Cino; L. H. Shaab, Stoddard-Dayton.

Division 6, 20 miles an hour—D. A. Hall, Matheson.

The first day's journey was to West Point, N. Y., the luncheon stop being at Morristown, N. J., the very place, by the way, that was inhospitable enough a month ago to fine members of the Quaker City Motor Club for scattering confetti while passing through on a tour. There the motorists, without extra charge, were permitted to look upon the place where Washington made his headquarters during the Revolution. Mr. Munsey, by the way, did not announce the spot through a megaphone in the approved "rubberneck wagon" style. Wednesday the jaunt was taken up to New London, where the expanse of the Thames that has furnished shipping for so many college boat races, was viewed with more or less baited breath. To-day's schedule calls for a descent upon the modern Athens, but as last year's Munsey slate, owing to uncertain conditions, proved as elastic as chewing gum, shifts may be in order. From Boston it is announced the "party will 'skirt' the coast of New Hampshire and Maine to Portland," where the matches used to come from. After Portland a seemingly Biblical touch will be imparted by going to Bethlehem for Sunday, which place, however, is in the White Mountains, not Palestine. After a day for recuperation, Burlington, Lake Champlain, Lake George, Saratoga, Binghamton, Wilkesbarre, Harrisburg, Washington and Baltimore will follow. Between the pilot, pacemaker, starter, press and photographers there are eight official cars.

On the first day's run the Brush No. 13 was penalized three points for an involuntary stop of the motor, while the Inter-State received 49 points, three points for putting in oil on the road and the balance for labor in abstracting foreign metal from the transmission.

Smooth running characterized the second day, but at the New London finish two penalizations were improved. Ross Henwood, Ohio, lost 25 points for a gasoline leak, while Berger, Warren-Detroit, received four demerits for work done on the carburetter. That left 24 cars with perfect scores up to Wednesday night, the 17th.

**Matson to Drive Corbin Racers.**

Although Joe Matson is in the employ of the Hudson Motor Car Co., Detroit, Mich., he will, nevertheless, drive a Corbin car in the Elgin National Trophy and Fairmount Park races, and probably in the Vanderbilt. This "farming out" of Matson, whose appearance at the wheel of the Corbin is in the nature of a return to his old love, is brought about by the fact that the Hudson company will not be represented in any of these classics, so that second call on his services was sought and secured with the permission of the Hudson company.



GENERAL VIEW OF START OF MUNSEY TOUR

away, including Frank Hardart, winner of last year's sweepstake in the Munsey contest, who again pinned faith to the big Elmore touring car. Since the elder Hardart, a baker and restaurant keeper, has been furnishing pastry to Quakers for many years it is only natural that he should occasionally reverse operations by seeking to "take the cake" from others.

Somehow William Penn's descendants and others who saw the start found it a little hard to reconcile the getaway with the "color story" of the advertising tour dished up for the connecting links of the Munsey newspaper chain. The presence of Lewis Strang, in the Pierce-Racine, was a godsend to the reporters, inasmuch as it permitted them to reel off sentences about "contestants skilled in the school of long experience," which finally became as long and tangled as ticker tape during a stock market panic. Presumably by a rule of the business office, care was taken to observe in each story that the affair was "inaugurated without a hitch despite adverse weather conditions," also that "besides the natural beauty and historic interest attach-

last fall and drove in the Washington-Richmond newspaper contest of a few weeks ago. W. D. Arrison, like Carter, was also in both those events. The complete list of starters follows:

Division 1, 16 miles an hour—P. R. McKenney, Brush; D. E. McCoy, Brush; Kenneth Crittenden, Krit.

Division 2, 18 miles an hour—F. H. Peabody, Ford; James Cherry, Ford; Charles E. Miller, Ford.

Division 3, 18 miles an hour—R. M. Upton, Moon; L. M. Lambert, Maxwell; Tom Berger, Warren-Detroit; A. W. La Roche, Regal Plugger; Clarence LaMar, Great Western; Emery Kudson, Staver-Chicago; Harry E. Walls, Maxwell; Charles Fleming, Maxwell; Walter Scott, Crawford.

Division 4, 20 miles an hour—I. W. Dill and G. H. Covert, Inter-State; A. G. Carter, Washington; W. D. Arrison, Washington; Lewis Strang, Pierce-Racine; Harry Frisch and H. C. Prown, Enger; Ross Henwood, Ohio.

Division 5, 20 miles an hour—Fred Cassel, Glide; C. C. Fauman, Kline; Gordon M. Wagner, Columbia; A. S. Hardart, Elmore;

## ELGIN RACE GAINS NEW PRESTIGE

**Elimination of Rival Projects Affords it National Importance—Program and Entrants are Announced.**

Thrown on the table, figuratively speaking, by the Lowell (Mass.) Automobile Club, through its inability to overcome local opposition, the national stock chassis races for this year have been awarded by the A. A. A. contest board to the Chicago (Ill.) Motor Club, which, in conjunction with the Elgin Road Racing Association, will stage the classics at Elgin, Ill., on Friday and Saturday, August 26th and 27th.

tory a record breaking crowd is expected. The program and entrants to date follow:

**Friday, August 26—Fox River Valley Trophy, 135 Miles.**

Open to stock chassis, as defined by Class B, Division 2-B of the 1910 contest rules; 161-230 cubic inches and 1,400 pounds minimum weight. Permanent possession of trophy and \$300 in cash to the winner. Entrants: E. A. Hearne, Benz; W. N. Endicott, Cole; Frank Kulick, Ford; Al. Schillo, Overland; Harry Endicott, Kisselkar; Chester Cheney, Staver; G. Monkmeier, Staver.

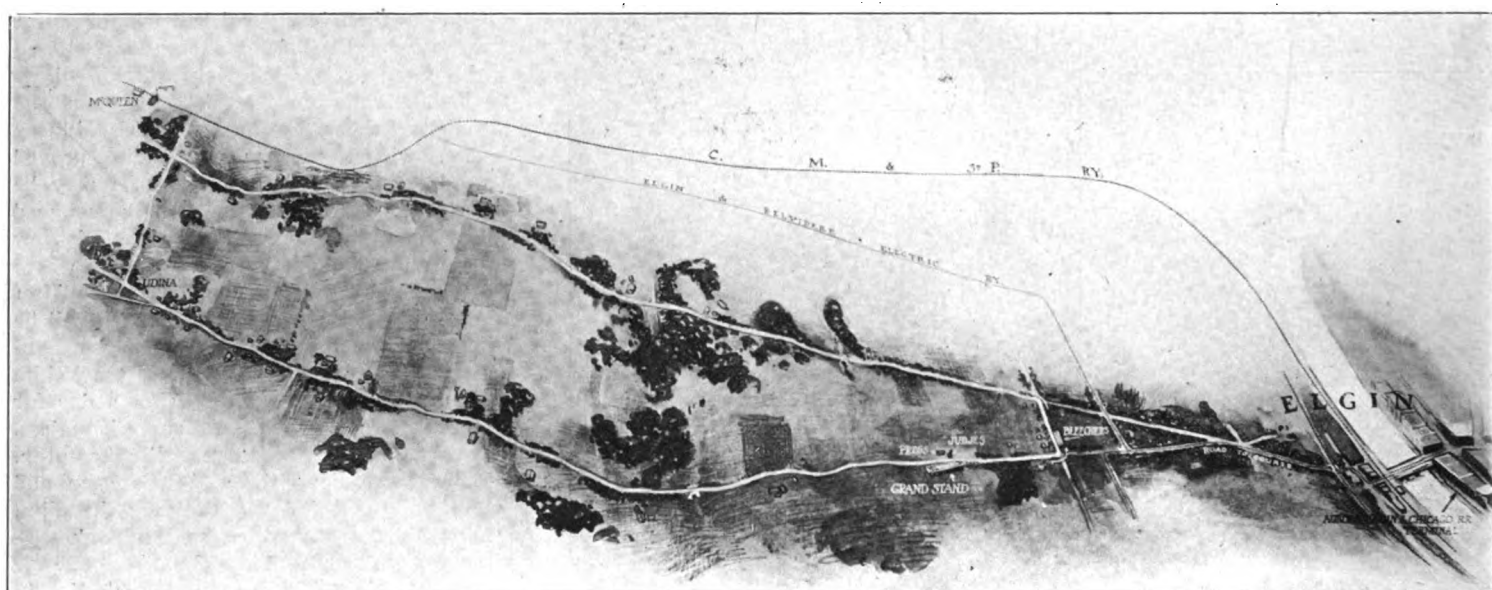
**Kane County Trophy, 170 Miles.**

Open to stock chassis, Class B, Division

entrants: Harry F. Grant, Alco; Joseph Matson, Corbin; H. Saynor, Simplex; A. W. Greiner, National; Al. Livingstone, National; Guy Carpenter, Matheson; Ray Harroun, Marmon; Joseph Dawson, Marmon; A. Monsen, Marion; Ralph Mulford, Lozier; George Schoeneck, Kisselkar; E. P. Scheifler, Jackson; Black Crow, not named.

### Algonquin Climb Off; Will Build Hill.

Rather than comply with the unreasonable demand of the McHenry county authorities for a bond of \$20,000 to indemnify them for damage to the roads, the Chicago Motor Club has postponed its annual climb at Algonquin, Ill., until it can build a hill. The new date set is September 15th. Perry hill, over which the trouble



MAP SHOWING THE ROUTE OF THE ELGIN COURSE

By this official recognition and sanction the Elgin races, which already had succeeded to the local title of the "Western Vanderbilt," through the conversion of the Cobe race to a speedway event, gain still further prestige of a national order.

Four speed events will be decided during the carnival, three short-distance races, which will take place simultaneously on Friday, while on Saturday the boards, or rather roads, will be given over exclusively to the top liner, the 300-mile Elgin National Trophy race. All races will be for stock chassis only, and 1911 models may compete, provided they have been registered with the contest board prior to August 10.

Located close to the Watch City, the course, which is an 8½-mile circuit, with but four turns and no road crossings, is said to be exceptionally fast and well suited for such an occasion. The turns will be policed by Illinois National Guardsmen and flagmen, while the entire circuit will be enclosed by a wire fence. Oiling, banking of the turns and repairing of the surface now is in progress. Owing to its accessibility from Chicago and adjacent populous terri-

3-B; 231-300 cubic inches and 1,700 pounds, minimum weight. Permanent possession of trophy and \$300 in cash to winner. Entrants: Joseph Dawson, Marmon; Ray Harroun, Marmon; Ralph Ireland, Midland; Al. Schuler, Overland; Cino, not named.

**Illinois Trophy, 204 Miles.**

Open to stock chassis, Class B, Division 4-B; 301-450 cubic inches and 2,000 pounds minimum weight. Permanent possession of trophy and \$400 in cash to the winner. Entrants: J. F. Gelnow, Falcar; W. H. Pearce, Falcar; George Schoeneck, Kisselkar; A. Monsen, Marion; Marmon, not named; Al. Livingstone, National; A. W. Greiner, National; E. C. Gooney, Velie; J. H. Stickney, Velie.

**Saturday, August 27—Elgin National Trophy, 300 Miles.**

Open to stripped stock chassis, as defined by Class B, with a piston displacement under 600 cubic inches and a minimum weight of 2,300 pounds. Possession of trophy for one year and \$1,000 cash to the winner; second, \$300; third, \$200. En-

arose, will be abandoned altogether and a new hill which will be half a mile in length is now under construction on the property of a farmer who is in sympathy with the motorists. He has given the club a five years' lease of the property for a nominal sum, and this new proposition caused the club to abandon its contemplated construction of a hill near the Morton house, which it was found would prove too expensive. Phillips hill will be retained so that the twin climbs which distinguish the contest from others will remain a feature.

### Motor Cars Effective for Riot Duty.

Another use for the automobile has been discovered by the police of Atlanta, Ga. During a riot the crowd became so dangerous that the few policemen were unable to scatter them by any of the usual means; they requisitioned several big touring cars and in them charged the mob from all sides. The sight of the big cars coming towards them caused the fighting men to run in all directions. Quite a number of the rioters were struck by the speeding cars and bruised.

**MOTOR TRUCKS DO GOOD WORK**

Only Eight of 69 Starters in Philadelphia-Atlantic City Test Fail to Finish—  
Scores not yet Tabulated.

Sixty-one of the 69 motor trucks that started last Friday morning, 12th inst., in the commercial vehicle reliability run from Philadelphia to Atlantic City and return, 120 miles, finished that contest the next evening with creditable showings. The total load carried by the 69 starters was 117 tons, the heaviest single burden being seven tons, while the smallest tonnage was 600 pounds, three cars having that total.



TWO OF THE HEAVILY LOADED TRUCKS—

The affair, which was under the auspices of the North American newspaper and the Quaker City Motor Club, was intended to and did demonstrate that merchandise can be motor delivered at such distances in less time and with less expense than by express and fast freight. Such service should prove as important a supplement to railroad transportation as has the interurban trolley in many districts.

It will be several days, at least, before the findings of the committee are made known, inasmuch as the figures will include also the gasoline, oil and electric costs per mile. That will be possible, since a uniform charge was made for supplies. According to an observer with a penchant for figures the combined power of the starters was equivalent to 1,335 horses.

The nominal start was from the City Hall, Philadelphia, and necessitated crossing the Market street ferry to Camden, the real starting place. Due to special provisions made, the 69 large trucks and small ones all were on the other side of the Delaware within 30 minutes of the time the first crossed. Possibly in years to come the achievement may be handed down along

**STARTERS IN THE PHILADELPHIA-ATLANTIC CITY TRUCK TEST.**

Manufacturers' Division.

Class A (1½ tons capacity and less) 15 miles an hour

Car.	Entrant.	Driver.
Randolph .....	Randolph Motor Car Co.....	R. G. Shuert
Chase .....	Commercial Motor Car Co.....	W. F. Wood
Chase .....	Commercial Motor Car Co.....	R. L. Ferris
Chase .....	Commercial Motor Car Co.....	W. J. Burns
Rapid .....	Rapid Motor Vehicle Co.....	James Carey
Martin .....	Martin Carriage Works.....	E. L. Kraft
Martin .....	Martin Carriage Works.....	John M. Bowers
Torbensen .....	Torbensen Motor Car Co.....	Allen Torbensen
I. H. C. ....	International Harvester Co.....	W. A. Bauer
I. H. C. ....	International Harvester Co.....	Samuel B. Shock
Buick .....	Buick M. C. Co., Philadelphia Branch.....	Willie Thompson
Buick .....	Buick M. C. Co., Philadelphia Branch.....	Edward Davis
Atterbury .....	Finnesey & Kobler.....	M. Kobler
Franklin .....	Franklin Motor Car Co.....	W. R. Coughty
Hart-Kraft .....	Hart-Kraft Motor Truck Co.....	R. B. Lawrence
Grabowsky .....	Edgar W. Hawley.....	G. G. Stranahan



THE MACK AND THE FRAYER-MILLER

Overland .....	W. J. Sprankle.....	D. McDermott
Victor .....	Victor Motor Truck Co.....	C. E. Shaw

Class B (between 3001 pounds and 5999 pounds) 12 miles an hour

Garford .....	Garford Motor Trucks Works.....	Ritter
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Class C (three tons and more) 10 miles an hour

Frayer-Miller .....	Kelly Motor Truck Co., of Philadelphia....	Harry Webber
Schleicher .....	Schleicher Motor Vehicle Co.....	Alfred Besser
Standard Gas and Elec.....	Standard Gas and Elec. Power Co.....	W. Hunsberger
Gramm .....	A. T. Gardiner.....	Archie Nobb
Packers .....	Packers Motor Truck Co.....	C. H. Smith

**Private Owners' Division**

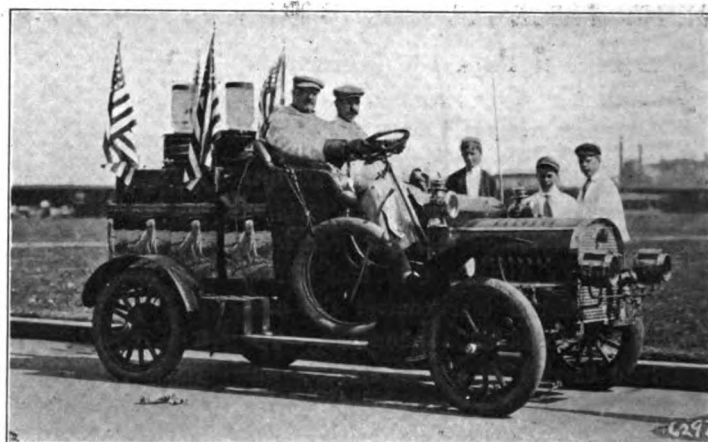
Class A (1½ tons capacity and less) 15 miles an hour

Autocar .....	Strawbridge & Clothier.....	George Smith
Autocar .....	John Wanamaker .....	R. Crossing
Autocar .....	Bailey, Banks & Biddle.....	John J. Frewen
Autocar .....	Bailey, Banks & Biddle.....	Jos. P. F. Daly
Autocar .....	Lindsay Brothers, Inc.....	J. Hor'ce Lindsay
Autocar .....	Consolidated Rubber Tire Co.....	James Justice
Maxwell .....	Coca Cola Company.....	A. A. Whitcomb
Autocar .....	Cluett, Peabody & Co.....	John A. O'Neill
Autocar .....	Cluett, Peabody & Co.....	John M. Beatty
Autocar .....	E. Bradford Clarke.....	Frank Donnelly
Autocar .....	Fritz & La Rue.....	Frank J. Scullin
Rowan .....	Wright, Tyndale & Van Roden.....	A. W. Kneer
Autocar .....	Michael Del Collo.....	M. Del Collo
Autocar .....	Eshleman & Craig.....	Elmer Baurichter
Autocar .....	J. E. Caldwell & Co.....	E. Keller
Autocar .....	A. F. Bornot Brothers Co.....	George Myers
Renault .....	A. F. Bornot Brothers Co.....	J. G. Carvill
Autocar .....	Theo. F. Siefert.....	B. Siefert
Autocar .....	J. S. Ivins Son.....	H. V. Fancev
Cartercar .....	Kellogg Toasted Corn Flake Co.....	W. S. Kennetsby





EXAMPLES OF HEAVY AND LIGHT COMMERCIALS



THE GAGGENAU AND RAMBLER TRUCKS

Car.	Entrant.	Driver.
Autocar .....	Crane Ice Cream Co.....	Althouse
I. H. C. ....	C. M. Ware.....	C. M. Ware
I. H. C. ....	S. F. Slaymaker.....	S. M. Slaymaker
Autocar .....	C. J. Heppe & Son.....	K. W. Poole
Autocar .....	Charles W. Young & Co.....	W. W. Heeley
Autocar .....	R. G. Wood.....	Jerry Callopy

## Class B (3001 pounds to 5999 pounds) 12 miles an hour

Motor Commercial.....	Suburban Auto Express Co.....	M. Plush
Frayer-Miller .....	Dives, Pomeroy & Stewart.....	E. O. Bennett

## Class C (three tons and more) 10 miles an hour

Packard .....	John Wanamaker .....	Wm. Danforth
Reliance Truck .....	J. B. Van Sciver Co.....	
Alco .....	Gimbel Brothers .....	
Alco .....	Gimbel Brothers .....	
Frayer-Miller .....	Fleck Brothers .....	A. Jones

## Electric Vehicle Division

## Class A (1½ tons capacity and less) 12 miles an hour

Commercial Truck .....	John Wanamaker .....	Harry McCargo
Commercial Truck .....	Bergdoll Brewing Co.....	Fred Bauer
Commercial Truck .....	American Brewing Co.....	Robert Rother
General Electric .....	General Vehicle .....	

## Class B (3001 pounds and 5999 pounds) 10 miles an hour

General Vehicle .....	Bergdoll Brewing Co.....	Harry Wright
Commercial Truck .....	John Wanamaker .....	Thos. Kelly
Commercial Truck .....	American Brewing Co.....	F. Flubacher

## Class C (three tons and more) 8 miles an hour

Commercial Truck .....	American Brewing Co.....	Karl Bey
General Vehicle .....	Shane Brothers & Wilson.....	

## Mammoth Trucks (gasolene, more than four tons) 8 miles an hour

Mack .....	Shane Brothers & Wilson.....	E. Purgeon
Gaggenu .....	Benz Import Co. of America.....	P. W. Gaylor
Mack .....	Walter T. Wilson.....	

with that of George Washington's passage across the stream.

The gasolene cars first were divided into two divisions, under the category of manufacturers' and private owners' divisions. Then each division was subdivided into classes, according to capacity. The electrics, of which there were nine, comprised a division by themselves, similarly separated into classes. The prizes offered were for ability to maintain a time schedule, according to size and economy of fuel. Four of the entrants failed to put in an appearance. Much ingenuity was shown in the disposition of loads, largely with a view to displaying signs and banners to the best advantage.

As the boardwalk had to be crossed on the outskirts of Atlantic City, the managers prudently made a special provision by which the three biggest trucks were put in a special class, compelling them to unload at Absecon and then after going into town pick up their freight again, there, on the return journey. It was fortunate that such a course was followed, for as it was the biggest electric went through the boardwalk in getting over, but did no damage except to the planks. In consequence that electric was transferred to the "mammoth vehicle" class cars.

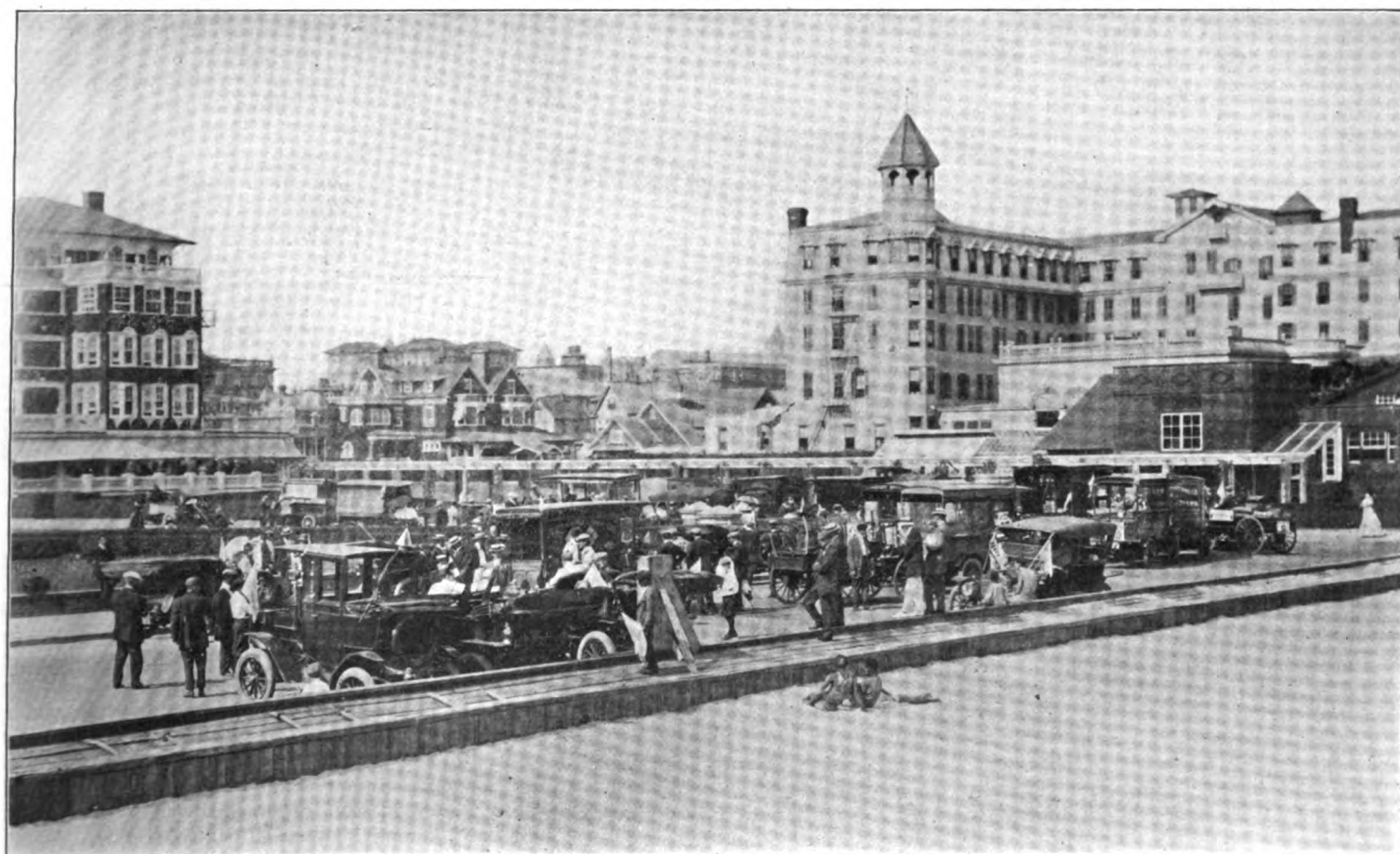


TWO VIEWS SHOWING THE KIND OF ROADS COVERED BY THE PHILADELPHIA-ATLANTIC CITY CONTEST





THE TRUCKS GETTING INTO LINE AT CAMDEN



ARRIVAL OF THE TRUCKS AT ATLANTIC CITY

Although no road difficulties were encountered, the trip was not without plenty of incident. Arrived at Atlantic City it was arranged that all the trucks should be parked, over night, on one of the ocean piers, as an object lesson. To do so a runway of heavy planks was laid across the boardwalk, the foundations of which were also strengthened. A few of the trucks were too high to gain entrance to the pier, so they were stored near by. The Packers truck, which fell in the third class, having a capacity of three tons or more (the special class having a rating of not less than four tons), had the hardest luck on the trip. It did the first 30 miles in 92 minutes, 24 minutes less than the allowance for the smallest vehicles. The tires, however, were unequal to the strain, wearing down to the rim. No extra tires had been carried and none were obtainable in Atlantic City. Finally after telephoning to New York, a special locomotive was dispatched with tires. When they arrived, however, they could not be made to fit, so withdrawal followed.

The Grabowsky car was three times in collision. The last occasion was at the end of 26 miles, resulting in broken lamps and other damage. The driver declared that the truck which ran into him had been jockeying for position. The outcome of the accident was that rather than be penalized for making repairs, the Grabowsky was withdrawn as a contestant, but pushed ahead to Atlantic City and then returned to the Philadelphia City Hall that same evening.

Tire trouble was the main shortcoming among the eight that did not finish. Of that number six were in the manufacturers' division, showing that drivers from the factories did not add prestige. As a matter of fact, however, so few commercial vehicle tests have been held in this country that few of the drivers could be called professionals.

Two of the eight did make the return trip, but not as contestants. Of the aforementioned eight, five were small trucks while the other three belonged to the largest class not the special.

During the Atlantic City stop a dinner was given to the drivers and observers at one of the hotel gardens by the Autocar Co., which, with 20 starters, had the largest representation.

#### Torpedo Effect for a Char-a-Banc.

That torpedo construction is destined to be confined to the realm of the light and swift pleasure car need not for a moment be supposed. Already a British manufacturer has produced a large char-a-banc in which the straight-sided and high-door profile of the "battleship" body is faithfully reproduced, though for what purpose, considering the intended use and generally slow speed of the machine, is difficult to say.

## ALCO ADOPTS NEW CARBURETTER

**Extreme Flexibility Claimed for it—All Other Changes of Minor Nature—Price of One Model Reduced.**

In announcing the new Alco line, the American Locomotive Co., New York City, indicates a continuance of its former product, improved only insofar as two models are concerned, and otherwise unchanged or only very slightly altered. The six-sixty and four-forty touring models, the 22 horsepower town car and the 16 horsepower cab are to be continued, as is the three-ton truck. The two smaller cars remain exactly as specified in the current catalog, while the truck also is unchanged mechanically. In the matter of price, however, the truck is listed at \$3,650, instead of \$3,500 when equipped with the standard form of express body. The smaller of the two touring cars also has undergone a price revision and now sells for \$4,500, with seven-seated touring, small tonneau or runabout body, instead of \$4,750, as formerly.

The most pronounced changes in the line have been inaugurated in this particular model. Its power has been increased, for one thing, this change having been brought about by increasing the cylinder bore  $\frac{3}{8}$  of an inch, the dimensions now being  $5\frac{1}{2}$  by  $5\frac{1}{2}$  inches, instead of  $4\frac{3}{4}$  by  $5\frac{1}{2}$  inches bore and stroke. The valve diameters have been increased to 211-16 inches, and both radiator and pump capacity likewise have been increased.

Briefly summarized, these changes include the adoption of a new Alco carburetter, which is said to be extremely flexible and which is designed to permit of running at unusually low rates of speed in conformation with the requirements of city traffic. The Bosch dual ignition system is retained, but with the adoption of a new form of coil, only the vibrator part of which extends through the dash board, and also with increased battery capacity. The motor now is set horizontally, instead of being inclined slightly toward the rear.

Newly-designed forged steel strut rods have been introduced, while the universal joints now used on the propeller shaft are of particularly stanch and massive design. The radiator is supported on trunnion bearings to afford it freedom from the strains set up by the inevitable weaving of the frame, and it is tied to the dash by the rod which supports the top of the bonnet. The depression lever has been removed from the inside of the dash and in its place a rod now extends to the front of the radiator, so that the compression may be relieved by the operator himself at the moment of cranking.

In the matter of body design only slight changes have been made. Indeed, it is dif-

ficult to distinguish between the present line of bodies and those which have been standard in the most recent Alco products. The regular tire equipment is to include Continental quick detachable and demountable rims. Continuing its early policy of marketing its product fully prepared for road service, including a full line of accessories and the top, the American Locomotive Co. will sell its new cars in complete touring trim.

#### Substitute for the Starting Crank.

Substitutes for the starting crank by no means are as prevalent as the average motorist could wish, and therefore considerable interest attaches to the introduction of any new device of the sort. The latest starting arrangement has been placed on the market by the Automatic Starter Co., Chicago, Ill., and is simply known as the Automatic Starter. Avoiding mechanical contraptions attached to the engine crank shaft, it follows the ordinary principles of engine operation to the extent of providing an independent carburetter and manifold, through which starting charges of gas may be injected into the various cylinders of the engine without in any way interfering with normal operating arrangements.

In putting the device into action the driver merely works a pedal or lever, which causes a number of pistons to reciprocate simultaneously in as many cylinders. With one pump cylinder for each engine cylinder, this permits a separate charge of gas to be drawn from the independent carburetter, compressed and forced through automatic check valves into each cylinder of the engine. The regular ignition system causes it to be fired. Under the circumstances, of course, this suffices for the first turn or two of the crank shaft, after which the engine commences to operate in the regular way. The system is marked by ample safeguards against mishap in the way of back-firing, and is simple in operation.

#### New Compound for Closing Cracks.

Although the H. W. Johns-Manville Co., New York City, takes considerable pride in its success in "stopping leaks," its efforts are not, as might be inferred, along the direction of installing or devising new book-keeping or cost accounting systems, but more directly in line with its main business, which, as is well known, consists in the preparation and marketing of various asbestos products. The "J-M Leak-No," which is the medium of prevention herein referred to, is a metallic compound especially devised to prevent leakage in "anything made of iron or steel." As indicated in a newly-issued mailing card, Leak-No is intended primarily for use about the busy power plant or factory. There is little doubt, however, that the fertile motorist might find it a handy material to have at hand in case of cracked water jackets or other misfortunes of a kindred nature.

## NEW BODIES FOR THE MARMONS

**Of So-called Torpedo Type but of Strikingly Distinctive Design—Other Alterations in the Indianapolis Product.**

Building on the strength of a successful season of production and marketing, in which no small part of the stamina of the product has been revealed in its racing exploits, the Nordyke & Marmon Co., Indianapolis, Ind., announces its intention of continuing to build the model "Thirty-two" substantially as in the past. The deci-

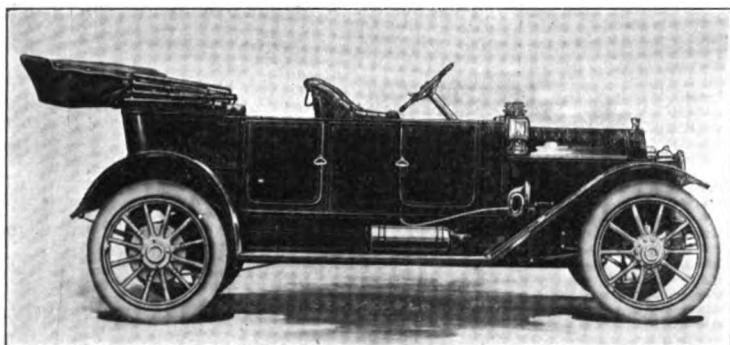
senger roadster, which is an exceedingly smart looking little car. Limousine, landaulet and coupe models also are to be produced, though only on order.

In the delineation of the standard bodies the straight line effect has been obtained, though without any sacrifice either to effectiveness of line or of the comfort of the passengers. The roadster model in particular is noteworthy not only for its appearance, but for its appointments, which include the trunk, gasolene tank and tire rack, which are mounted behind the seat.

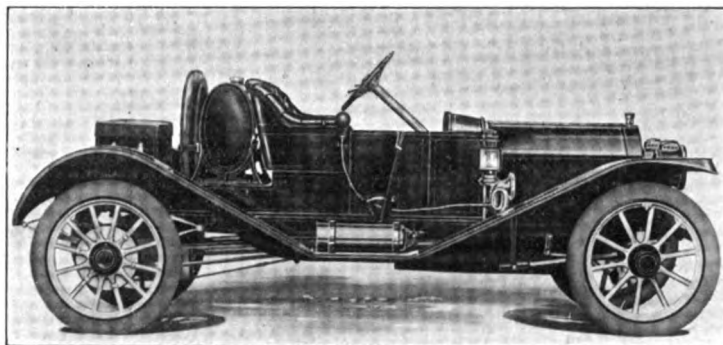
By increasing the wheel base four inches, making it 120 inches in the new models, a corresponding amount of room has been

manifest striking details. The Marmon is a factory product to a greater extent than is true of most cars, and is produced under close and exact manufacturing systems. In this respect it has the advantage of close study and accurate assembling methods, which it is difficult to achieve with a car constructed to a large degree from stock parts.

The cylinder dimensions are  $4\frac{1}{2}$  by 5 inches, bore and stroke, and the rating of 32 horsepower, it should be observed, is that of the A. L. A. M. formula. The valves are interchangeable, and arranged after a fashion peculiar to this company. The intake piping is carried up from the



THE NEW STYLE MARMON TOURING BODY



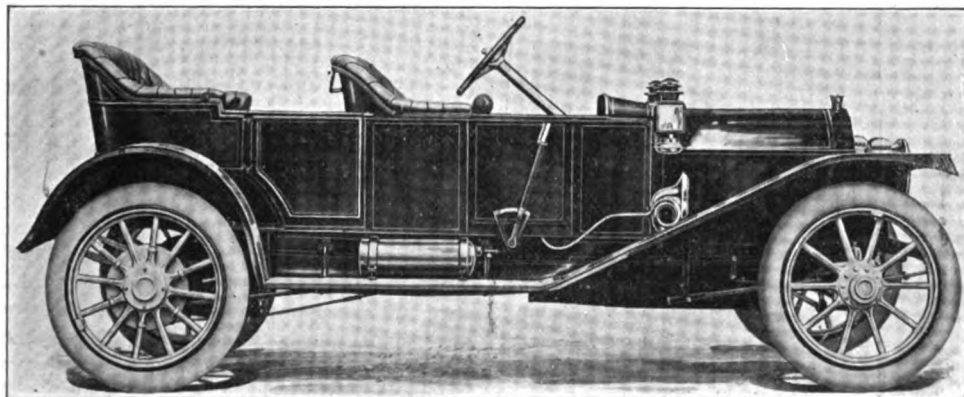
MARMON ROADSTER IN ITS LATEST FORM

sion, of course, is tempered to the extent of admitting a new and entirely up-to-the-minute line of bodies. But it almost goes without saying that in the production of these bodies the Marmon method of construction has been retained, namely that method which involves the use of a cast aluminum base with sheet metal seat backs.

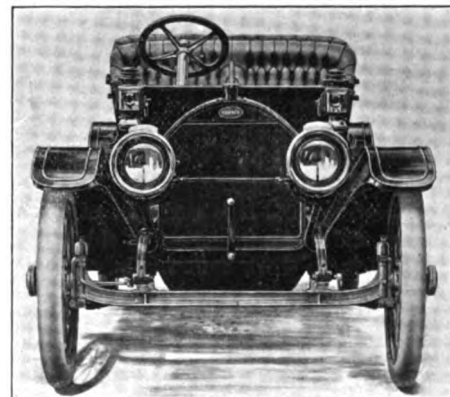
The new offerings in the way of bodies are illustrated by the accompanying pic-

added to the bodies and the general range of the cars has been improved. Except for this, practically no alterations, save those of minor import, have been made. This alteration is important, however, in that besides affecting the interior arrangements of the bodies and altering the outward appearance of the car to some extent, it permits it to be rendered even more easy riding than previously. As heretofore, par-

carburetter in a single lead, with a short T-fitting at its upper end, which conducts the gas directly to either of the two cylinder groups. The peculiarity of the valve, or rather cylinder, arrangement lies in the fact that the gas is drawn into the first and fourth cylinders over the closed valves of the second and third. This arrangement, while not employed by other builders, has been in use by the Nordyke



SIDE AND FRONT VIEWS OF MARMON "THIRTY-TWO"



CLOSE-COUPLED CAR

tures. As hitherto, but one style of chassis is produced, and the three styles of body here shown are adaptable to it and, therefore, render the line what is virtually a composition of three distinct types. In drawing the new designs, due attention has been paid to the present trend in the way of closed fronts and this effect is presented in the five-passenger touring car, the snug and attractive small tonneau and also, in revised and refined form, in the two-pas-

senger roadster. Particular attention has been paid to the design and construction of the spring suspension, which is of the full elliptical pattern behind, and semi-elliptical in front.

In regard to the mechanical arrangement of the machine, its original characteristics are retained. They include notably the T-head form of cylinder, with paired castings and unique piping and siding arrangements; the fabric-faced cone clutch and the axle-mounted change gear set, all of which

& Marmon Company for several years and possesses the advantages of simplicity and directness. It also is advantageous in that it eliminates all circuitous passages and provides a short path for the gas to travel.

The Marmon oiling system, another original feature, also has been in use for several years, and has proved eminently successful. In general principle it is not unlike that employed by a number of other manufacturers, but its detail arrangement

## TAKING CARE OF NEW YORK'S ROADS

**Not Much Evidence of it, but State has Theory and Bureau—How they are Supposed to Work.**

Motorists of New York state, who have seen many miles of new road quickly go to ruin on account of insufficient or entire lack of care, probably will be surprised to learn that the Empire State boasts of a bureau whose sole duty it is to see that the highways are kept in first class condition. This bureau, which was organized in the early part of 1909, is officially designated as the Bureau of Maintenance and Repair, and is supposed to work as follows:

A first deputy has charge of the maintenance and repair of roads after their completion, and his whole time and attention should be given to this one subject.

The state has been divided into six divisions. In charge of each of these divisions is a superintendent of repair. This superintendent of repair has charge of all the work of maintenance and repair in his division, except the work of resurfacing, which is superintended by the division engineer, who has charge of that division under the construction department.

Each division is divided into sections comprising one or two counties, according to the mileage of completed roads in those counties. A highway inspector, who is a practical man in so far as it has been possible to obtain such men from the civil service list, is assigned to each section. The completed highways are divided into patrols of from three to five miles each. A patrolman is appointed to care for the work continually on the patrol to which he is assigned under the direction of the highway inspector. The patrolman furnishes a horse and wagon having a capacity of about three-quarters of a cubic yard. These wagons are painted and marked with the number of patrol and the words "Department of Highways." It is the duty of these patrolmen, under the direction of the highway inspector, to work continually on their patrols, carting screenings or three-quarter-inch stone, to prevent ravel, repairing ruts, trimming the shoulders, cutting grass, opening the ditches, repairing guard rails, etc.

The patrolmen make a weekly report to the highway inspector, showing stations where the work was performed each day and the kind of work done. The highway inspector makes the rounds of his patrolmen as often as possible, directs his work and reports weekly to the superintendent of repairs, showing the roads inspected, their condition, and notes any absence of patrolmen from duty.

The patrolmen are provided with a staff containing a round metal disk on which is

painted the number of his patrol and which he carries in his wagon on going to and from work and which he plants upright in the shoulder of the road opposite the place where he is working each day. This staff enables the highway inspector to know on his inspection trips on what part of the road the patrolman is working, so that in case he has gone for material he can wait until he returns.

The patrolman takes his orders from the highway inspector in charge of the section. The highway inspector in charge of the section takes his orders from the superintendent of repair in charge of the division, and the superintendent of repair reports daily to the first deputy on all roads inspected in his division, showing the county, number of roads, remarks as to their condition, and his advice as to their treatment. The superintendent of repair in charge of the division also assigns to the county superintendent, who is appointed by the board of supervisors, such work of repair as may be done during the season and which is of such magnitude that the patrol system is unable to handle it.

When it is necessary to resurface a road, plans and specifications are drawn, work is advertised, and it is let by contract.

The work done under the bureau of maintenance and repair on the whole has been fairly successful. As might be expected, some failures have been made due to poor material used for a cover or because the oil was not properly applied. The cost of treating one mile of 16-foot macadam highway, according to the method set forth in the above specifications and with a good grade of asphaltic oil, is approximately \$425 a mile for one treatment.

In the work laid out for 1910 there are at least four or five hundred miles of asphalt macadam to be constructed by the penetration method and several miles of brick pavement.

### "Road Improvement" that Leads to Law.

Many Rochester motorists have filed complaints, and several have even instituted suits against the state authorities for damages sustained by the poor work on the state road running from Mendon to Canandaigua. The road is covered with tar without any additional dressing, and scores of tires, dresses and automobile bodies are said to have been ruined by the sticky tar. Motorists desiring to go from Mendon to Canandaigua are advised to proceed south towards Pittsford, Mendon and Ionia along the old state road, and then run due east to Canandaigua, as a means of avoiding the bad stretches.

### Oklahoma Referee Is Sustained.

Acting upon evidence which irrefutably established violations of the contest rules by the protestant, the Contest Board of the American Automobile Association has overruled the appeal of the H. H. Franklin

Manufacturing Co. from the decision of the referee of the Oklahoma Automobile Association's reliability tour early in June and sustained the referee's action, in disqualifying the Franklin car for violation of the rules. The ruling of the board was based upon the presentation of evidence in the form of an admission by the Franklin driver that he had left the official course, and did not establish the fact that he had returned to it at the place of departure, despite notification that he was off the route. It further was shown that Rule 413 was violated by the riveting of bolts on the particular car in question by a method different to that regularly employed on the same model at the factory, the difference constituting a departure from the stock car rules.

### Guest who Sues Host Loses his Case.

Of great importance to motorists intending to tour Germany is a decision of the highest court in Germany relative to damages caused by an automobile accident to the occupants of the car. In the case in question, the owner of the car had permitted a merchant whom he knew to accompany him on a trip into the country. A blow-out occurred on the road, and the merchant was thrown to the ground with considerable force, sustaining serious injuries. He sued the owner of the car for damages, but although he carried his suit to the highest court was unsuccessful in obtaining a judgment. The supreme court decided that in so far as the transportation was a favor on the part of the owner of the car, the injured friend had no claim for any damages which might be sustained by him during the time such favor lasted. The court decided, also, that if the merchant had paid even the smallest compensation for the trip, he could have demanded full damages for any injuries sustained.

### Abandons Dying Child by the Roadside.

Although the great majority of chauffeurs have learned to respect the rights of pedestrians on country roads, there still are some driving cars who have no more right behind the steering wheel of an automobile than a maniac has to a deadly weapon. One of them last week figured in the most revolting accident that has occurred in some time. A high powered touring car without passengers in the tonneau was driven at a rate of at least 30 miles an hour through Schenk avenue, Matteawan, N. Y., and ran over the two-year-old child of George Verdi. The chauffeur stopped the car after the accident, tossed the child into the grass along the road as if it had been a bundle of rags, and proceeded on his way. A number of men witnessed his actions from a distance and running up found the child frightfully hurt and dying. They vainly attempted to pursue the car, but the offending chauffeur escaped.



## STEARNS'S "VESTIBULE" BODY

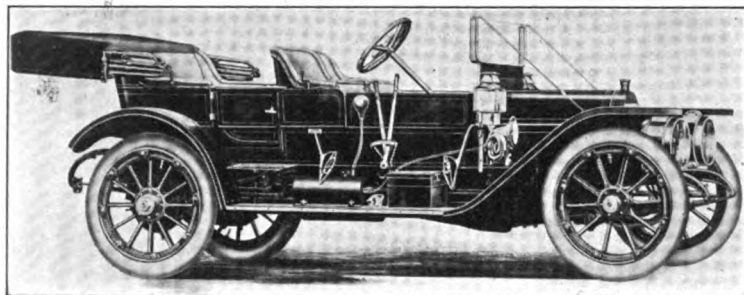
Cleveland Manufacturers Evolve a New Designation and an Individual Design—Distinguishing Characteristics

Despite the inevitable confusion of nomenclature there is unquestionable wisdom in the policy adopted by certain manufacturers in choosing individual names for their new style bodies. A case in point is the new Stearns "vestibule" body. In general class it belongs to the torpedo system of architecture. Yet it is utterly different from the ordinary concept of the torpedo

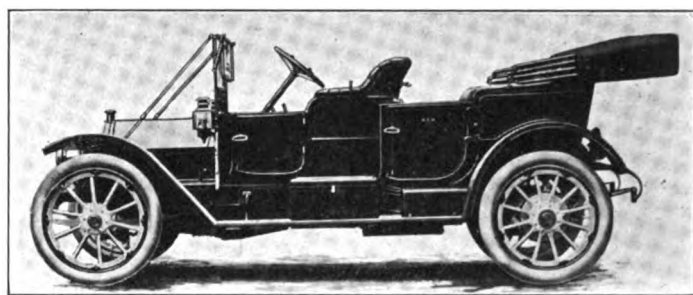
the chassis which have been under construction at the Stearns plant for some little time.

Two sizes of chassis are produced, one of "15-30" and the other of "30-60" horsepower. In both cases the enormous range covered by the rating is explained by the use of an original development of the multiple-jet carburetter principle. Both are of four-cylinder construction, but they differ to the very material extent that the smaller of the two is made with a block casting for the cylinders, while in the larger the cylinders are cast in pairs. Another material difference is that the 15-30 car has the change gear mounted on the rear axle in a peculiarly rigid manner,

ample elbow room, which otherwise might be denied him in so narrow a body, this arrangement also renders the accommodation for the "preferred" passenger both commodious and comfortable. The sides of these bodies are extremely low, hence the general appearance of the vehicle is rendered decidedly rangy. On both models the gear shifting and emergency brake levers are placed outside the body, while due advantage is taken of the running board space on the right hand side for the mounting of spare tire equipment. In the pictures of the 30-60 cars it will be observed that both the shaft and chain driving arrangements are depicted. The large touring car is the one shown with shaft driving



STEARNS 15-30 SMALL TONNEAU CAR



THE 15-30 MODEL AS A TOURING CAR

body and also merits more discrimination than would be exercised merely by throwing it into the four-door class. This applies more particularly to the small tonneau form, which is distinctly individual and constitutes a modernization of the Guy Vaughn body of a year or two back, which was eminently individual.

The F. B. Stearns Co., Cleveland, Ohio, adheres to the policy of building its product

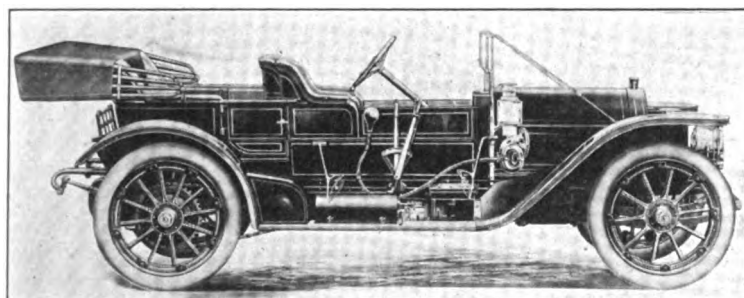
while the 30-60 car has the more nearly standard form of gear box mounted in the waist of the frame and is made with either shaft or chain drive.

The bodies for the new series cars are much the same in form for both models. They consist of touring and small tonneau types, both of which are provided with high sides and, therefore, are rendered both warm and dust-proof. The touring

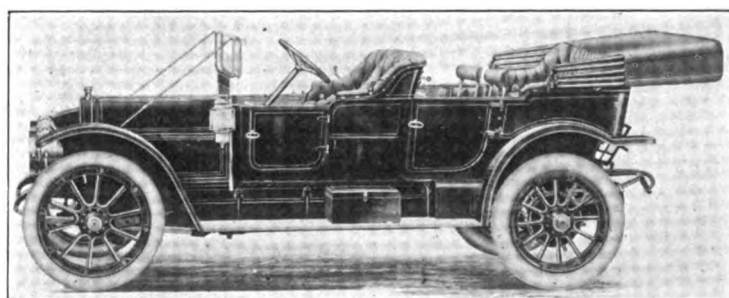
construction, whereby its similarity to its small sister car is measurably heightened.

### Fuel and Drinks from Slot Machines.

Recalling the days when bicyclists could obtain a supply of air for inflating their tires by depositing a small coin in the slot of an automatic dispensing machine, a Dayton (Ohio) inventor has produced the very natural and often talked-of wayside



STEARNS 30-60 CHAIN DRIVE ROADSTER



THE 30-60 MODEL IN TOURING FORM

on the series basis, but of avoiding season terminology in distinguishing between its various models. This provides for mid-season changes, if slight alterations be found expedient, without necessitating the declaration of an entirely new style of car. Also it creates an all-the-year-round market without any of the let-ups which are caused by prospective customers holding back in the hope of securing a little more for their money by waiting. Therefore, the chassis upon which the bodies here depicted are mounted, are designated merely as "new series" Stearns, and it may be added that they differ in no very great degree from

body for the smaller car is made to accommodate five passengers, whereas the longer and larger tonneau of the big model affords accommodation for five passengers in the rear, or seven in all, and has folding seats in the back, after the conventional fashion. Points of original design will be observed in the method of arranging the doors, in the drawing of the mud guards and in the vertical straight dash, surmounted by the folding wind shield.

The small tonneau models are distinguished by the placing of the left front seat a little to the rear of that occupied by the driver. Besides affording the driver

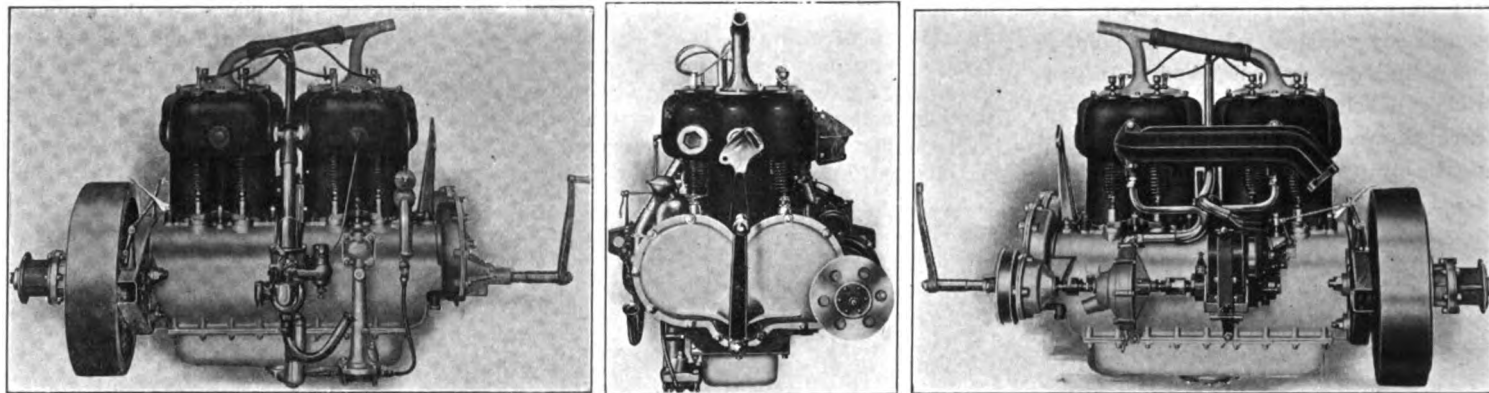
gasolene fountain. By a coin-controlled mechanism the device is arranged to deliver measured quantities of gasolene into a waiting receptacle, with which the stranded motorist may refill his empty fuel tank. It may be remarked in passing that the patent covering the gasolene dispenser also is intended to protect similar automatic provisions for assuaging the thirst of humans who have gone "dry." Indeed, if the plans of the inventor, who is E. H. Baker, are completely fulfilled, he soon will have silent though ever busy representation at every crossroad corner where motorists frequent.



is distinctive. From a reservoir in the engine base the oil is raised by a special form of gear-driven pump, which is placed in a detachable housing, external to the crank case, and is fed through ducts in the crank shaft and connecting rods to the entire series of engine bearings. Suitable provision is made for filtering the returning overflow from the bearings, while, as a

moving the wheels. This arrangement is made possible, of course, only by reason of the use of the full floating type of axle construction. Originality in the system is displayed clear through to the design of the wheel bearings, which are of the single row type. By making the inner ends of the driving shafts a close fit in the differential members, the effect of widely sep-

Particular attention has been paid to developing the success of the braking system. This is insured by the adoption of large wearing areas and heavy linkage. Heavy front axle design and an adjustable steering gear, which is so constructed that all wear in the essential mechanism may be taken up by the adjustment of a single screw are other features which have been

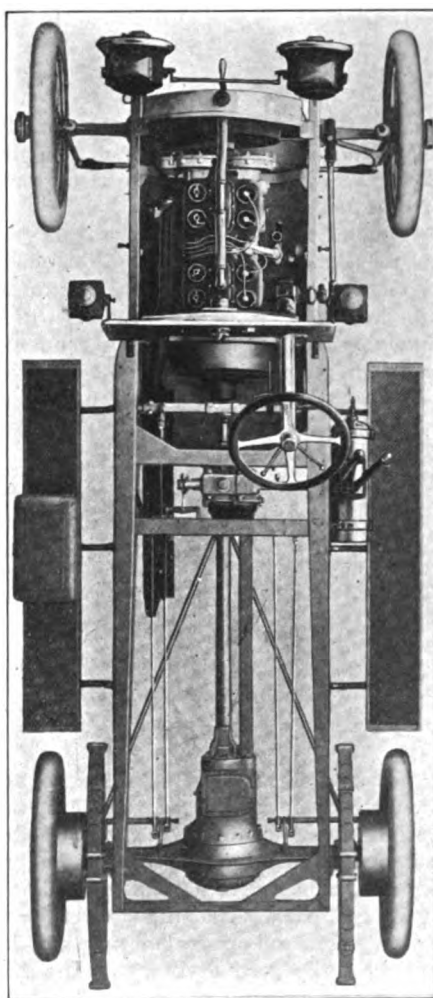


VIEWS SHOWING CONSTRUCTION OF THE MARMON "THIRTY-TWO" ENGINE

means of safeguarding the system against abuse, two independent methods of observing its action are provided. One is in the form of a float level indicator, mounted in a well at one side of the case, with its indicating rod rising in a vertical tube at one side. The other takes the form of an oil pressure gauge, which is mounted on the dash and which at all times indicates the amount of pressure which is applied to the system, thereby revealing at once any diminution in the rate of feed of the pump, of any tendency to choking up of the ducts or feeds.

One peculiar and commendable feature of the transmission system is that all moving parts are completely housed and protected from the inroads of dust and mud. This protection extends not merely to the driving parts, but to the mechanism of control also. The clutch shaft leads through a universal joint, which is supported very solidly in a cross frame member, to the propeller shaft proper, this member being equipped with but the single joint at its forward end and being entirely enclosed by the torsion tube. This member is stayed as to side stresses by means of diagonal braces which run from the axle extremities to the universal joint at the front end, which supports the tube and also resists the torsional load. Enclosed in an oval housing, which lies parallel to the torsion tube, are the pull-out rods by which the change gear mechanism is shifted.

The rear axle unit is an exceedingly sturdy piece of designing, readily distinguished by the spherical form of the pressed steel housing in the center, and so constructed that the entire internal mechanism may be removed from the rear without dismounting the axle from the chassis, and, if necessary, without even re-



THE MARMON CHASSIS

arated double row bearings is secured, while the smooth running qualities of the system are assured.

thoughtfully considered in putting the car together.

In the matter of equipment much the same standards prevail as heretofore. Eight-inch gas lamps, gas generator or Prest-O-Lite tank at the option of the purchaser; oil dash and tail lights, horn, coat rack, foot rest, pump, jack and complete outfit of tools, comprise the essentials. Tops and windshields are listed as extras. In the matter of price, the quotation for the standard finish and equipment now is \$2,700, as against \$2,650 formerly.

#### End of Pneumatic Tires Again in Sight.

The pneumatic tire again—and for about the 99,999th time—is to be “put out of business.” “A former German infantry officer” is the most recent “wizard” who has performed the feat, and his invention is so wonderful that it affords a sort of rocking horse movement instead of the usual up and down motion.

“He has shifted the point of elasticity, which formerly consisted of metal spring plates under the body of the wagon, to the axles of the wheels by an ingenious angle lever system and the result is astonishing,” says the German story. “The inventor uses ship’s cable for hooping, but even with wooden wheels he can maintain a complete elastic course over cobblestones, country roads, etc., as the wagon jolts are no longer up and down, but move in a horizontal plane forward and backward. He can cross the pavement curb without the occupants of the automobile feeling a jolt, as the body of the wagon is not raised, as formerly, but drawn under.”

“The A B C of Electricity.” Price, 50c. Motor World Pub. Co., 154 Nassau Street, New York City.

## CONTRASTS BUSES WITH "TRAMS"

**Expert Reveals Striking Economies in Motor Vehicle Service—Rail and Railless Systems in Close Rivalry.**

Recognizing its inherent possibilities advocates of motor omnibus transportation have not been slow to predict a great future for it. At the same time, and especially in the United States, it is commonly regarded as being still in its incipiency. Therefore, there is something decidedly radical, almost daring, in the attitude taken by E. Shrapnell Smith, the English authority, who boldly compares motor bus and trolley or tram car service on a business basis. In a paper read before the International Road Congress, at Brussels, Mr. Smith unearths statistics which fully justify his faith in the newer form of traction.

This faith he crystalizes in the statement of his belief that "the motor bus promoter, working in conjunction with the wood-paving contractor, will shortly occupy the commercial position which was enjoyed by the electric car builder and the permanent way contractor some ten and more years ago." Revealing ample confidence in the achievements of present practice he further asserts that "the commercial use of motor omnibuses has now reached the stage of development at which, for employment upon paved or other impervious road surfaces, all fundamental and practical difficulties of operation have disappeared."

"It has, in Great Britain, required a full decade of dearly-bought experience to justify this statement," he adds, and he further admits that "the problem of country services upon inferior macadamized roads whose metaling is loose and water-bound, still remains with us; its gradual simplification, by road engineers, can only be secured 'pari passu' in relation to the money that is placed at their disposal by the authorities concerned. There can be no approach to perfection of internal communication by road, unless, and until, drainage and other constructional road features are systematically taken in hand."

The outstanding advantages of the motor bus, as compared with the street railway, are set down as follows: Low capital outlay involved; absence of necessity to obtain special powers from the legislature; mobility of rolling stock; independence of a central power station; non-interference with other traffic; no rails; no overhead equipment; low working costs now achieved.

The capital outlay involved in a motor bus installation will be, it is declared, from 35 to 50 per cent. of that required for intensive electric traction, meaning where six or more cars are owned per route mile. In smaller towns, where five or less cars

per route mile are enough to cope with the traffic the ratio may fall as low as 25 per cent. The motor vehicles, however, readily will serve a much greater route length.

A concrete example in British experience is illustrated in the town of Eastbourne, a seaside resort and residential town on the south coast of England, with a fixed population of about 45,000 and a large holiday season influx lasting through four months of the year. In 1902 the Municipal Council rejected two schemes for electric tram car installation; one of these at a cost of \$150,000, was to have equipped about 1.8 miles of track and provided seven cars, while the other, at a cost of \$100,000, roughly speaking, was to have equipped 1¼ miles and provided four cars. Motor omnibuses were preferred, however, and a start was made in 1903, with the somewhat crude vehicles then obtainable. Four single-deck machines were obtained, and it is a commentary on their structural inefficiency that for the first year alone the tire costs amounted to as much as 8 cents per car mile.

To-day, after nearly eight years of running, the municipality owns a fleet of 20 double-decked vehicles, gives an adequate schedule with popular-priced fares, over 10.3 miles of route, and has a capital indebtedness of less than \$66,000. It is making profits that will pay off the entire amount, less every allowance for maintenance of plant and equipment, in less than seven years.

In regard to the mobility of the rolling stock attention is directed to the fact that passengers are taken on and discharged at the curb, instead of in the roadway. But more important, from the traffic manager's point of view, is the point that no central station mishap can paralyze the service. Each road unit carries its own source of energy. Retiming and headway maintenance—when circulation blocks, due to street accidents, processions or the like, have caused derangements—are infinitely more easy of ready accomplishment with the motor bus, and this factor greatly assists the traffic supervisors in the vital matter of keeping faith with the public. It is safely permissible, in numerous cases, to sanction higher point-to-point speeds for the motor bus, by reason of the fact that that vehicle is free to move about the roads obliquely, and thereby to avoid the aggregate of irritating minor delays which are peculiar to tramcars, and which are mainly due to the setting down and picking up of other tramcars on the same track.

Contrasting the relative independence and self-reliance of the motor bus and the street car, with particular reference to early objections to the former, Mr. Smith says:

"Motor busses are less noisy than tram cars; lubricating oil is no longer wasted; cases of side-slip have been reduced by more than 90 per cent., as drivers have

gained experience in the control of the vehicles; the number of fires has been negligible, and there has been no personal injury to a passenger in Great Britain—much less a death—from that cause; vibration, where it now occurs, is largely due to bad roads; third-party claims, in keeping with the experience of tram car undertakings after their first two years of working, are quite normal; the vehicles are no longer unreliable—in fact, it is probable, although exact data are not procurable, that tram cars now offer the less reliable method of transportation."

In advancing the proposition that low working costs are a present day realization, the author quotes from a recent report of the London Traffic Branch of the Board of Trade this significant statement:

"As rivals to tramways, motor omnibuses are likely to become more formidable than they have been hitherto, since they will be cheaper to work, and will travel longer distances than heretofore. Tramways have long since reached a stage at which there would appear to be little room for further improvement either in efficiency or cheapness. Motor omnibuses, on the other hand, are only beginning to show their capacity for dealing with traffic in large volume, and there is still an ample margin for improvement. As an instrument of locomotion the omnibus is in its infancy, whereas the tramway has come to maturity."

Speaking of earnings, the author refers to the experience of the London General Omnibus Co., which has failed to pay dividends for several years. This is not due to the poor paying quality of the motor bus business, however, as sometimes is made to appear, but to the fact that the company is forced to carry the unprofitable horse-drawn equipment which it still maintains. For the fifteen months ending last September, the company made roughly \$289,000, but nearly \$220,000 of this was diverted to the support of the horse equipment. As a matter of fact, the cost of working the motor equipment has improved during the past three years by 5½ cents per vehicle mile. The company now owns 1,000 buses and it will put the entire number into service during the present summer.

"In America," says Mr. Smith, "where 'hustle' is the order of the day, it is not even claimed that more than 14,000 passengers—many of them 'strap-hangers'—can be conveyed along the best electrically-equipped track per hour. A high performance is 8,000. In London, not infrequently, at the busiest hour of the day, as many as 9,000 passengers per hour are conveyed along certain central thoroughfares by motor bus; on the basis of 34-seated vehicles, but allowing an average of only 30 passengers per omnibus, this means five vehicles per minute, and corresponds to a mean interval on the road of (at 12 miles an hour) more than 210 feet. No traffic inconvenience is experienced at such times.

With larger bodies, and the author sees no permanent reason why more than 34 seats should not be allowed in numerous European cities, or in London itself, the capacity for passenger traffic by means of motor buses may safely be put as high as 20,000 passengers an hour, in each direction, where there is a call for such concentration.

"It is, of course, an exceptional requirement, and one that can arise only in special cases, and during relatively short crush periods of traffic.

"The conclusion to be drawn, from the experience of the past four years more particularly in regard to the change of

## NEW PLANT NEARING COMPLETION

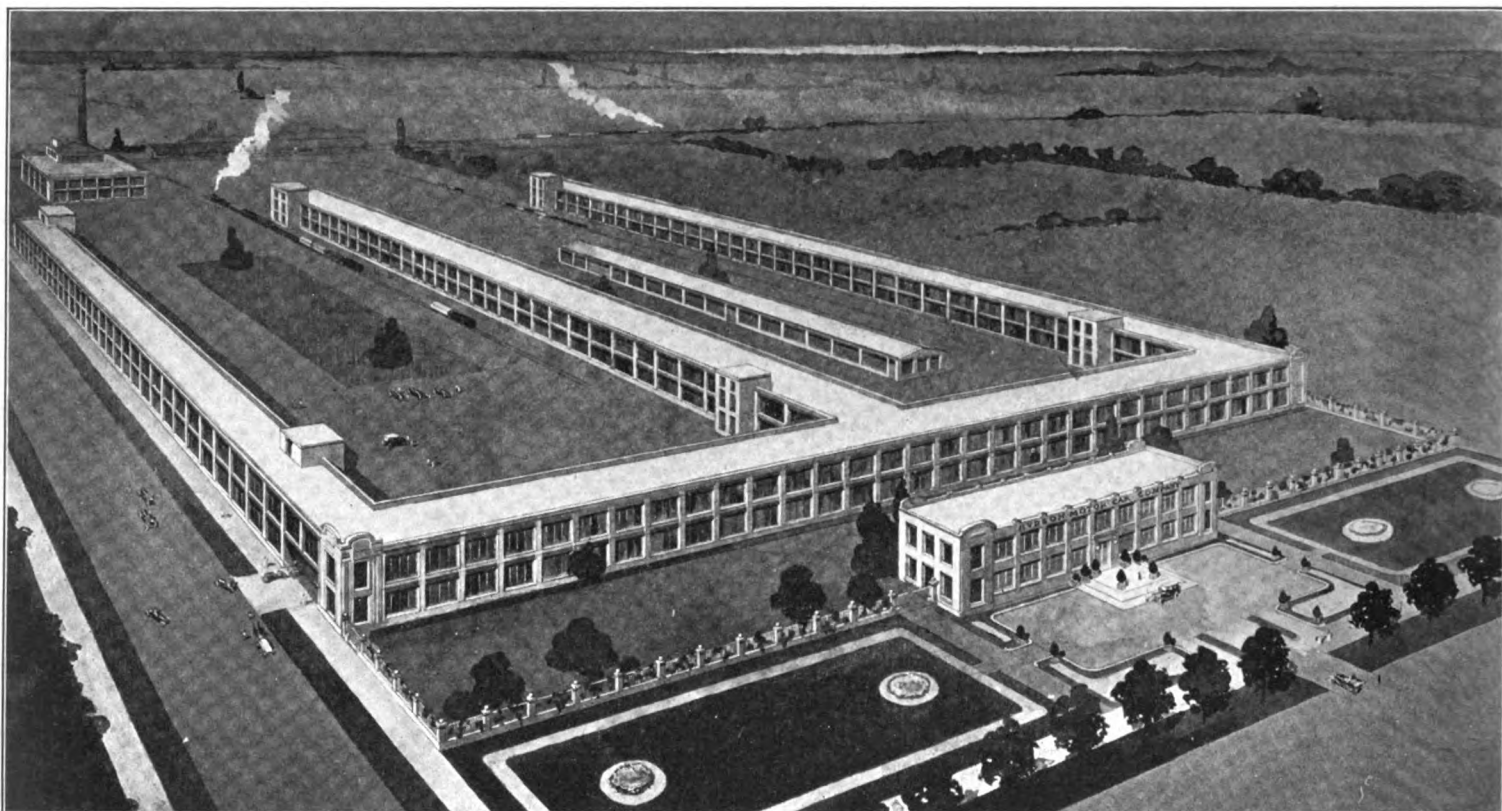
**Hudson's Huge Factory Almost Ready for Occupancy—Adequate Provisions for Expansion in the Future.**

The new factory which the Hudson Motor Car Co. is building at Detroit, Mich., now is nearing completion. While the previously published dimensions gave a fair indication of the size of the project, the accompanying photograph conveys a more complete idea of the magnitude of the structure. Erected in a remarkably short

contain the executive offices, sales and show rooms, model rooms and features of the most modern factories. This is of white concrete with a court in front.

### Scrubs and Clarifies Exhaust Smoke.

Municipal boards have passed anti-smoke ordinances and inventors have struggled with the problem of noise suppression in muffler construction, but it remained for the French constructor Dubreuil to originate a "smoke-filter" and muffler combined. This device, which fulfils much the same function as the ordinary muffler, with the added advantage that it clarifies the smoky exhaust as it passes through, is



BIRDSEYE VIEW SHOWING THE NEW FACTORY OF THE HUDSON MOTOR CAR CO.

relation between the claims of electric tram cars and motor omnibuses upon municipalities and private capitalists, is this: six double-deck motor omnibuses are practically able to provide the same carrying accommodation as five average-sized tramcars, by reason of their greater point-to-point speed, and, even though it should be decided to wood-pave the streets upon which the motor omnibuses run, and to charge that capital expenditure to the motor bus account, less money will have to be found for a motor-omnibus project. In the event of any such decision to lay wood paving, which is ideal for all other forms of traffic, the benefit will extend to the whole width of the highway, and the cost will include adequate concrete foundations, without exceeding tramcar and track costs."

time at a cost of \$500,000, the new factory comprises in addition to the main building, a testing building, shipping building, power house and office building.

These buildings are all of reinforced concrete and are strictly fireproof. They have been built so that two additional stories may be added at any time. The company also has an adjoining tract of land on which a duplicate of the structure now nearing completion can be built.

The new factory covers 122,352 square feet, or 2.8 acres. The total floor space amounts to 223,500 square feet, or 5.1 acres. Twenty acres are devoted to the site and surroundings of the new factory. The main building will be over 600 feet long. It will have three wings.

Directly in front of the factory building proper is the office building. This will

formed of a series of compartments connected in series and leading to the outlet pipe at the rear of the car. The compartments are in the form of rectangular boxes, of 8 by 10 by 2 inches dimensions, and are packed with a mixture of porous charcoal and amianthus, or finely divided asbestos or mineral wool fibers. As the exhaust passes through these filter packs it is scrubbed and rendered entirely colorless.

### Glass for Float Chamber Walls.

Whatever may be said for or against the use of the glass float chamber in carburettor construction, it has one distinct advantage. Any impurities in the fuel may be observed without dismounting any portion of the apparatus, while the presence of water, which so often causes mysterious stoppages, at once becomes apparent.

## MOTOR TRUCK AMONG ARMY MULES

**Chickamauga Training Camp Gives White Truck a Rigorous Test—Its Service Impresses Military Authorities.**

While the standing armies of Europe have been installing automobile trucks in the service of the commissary departments, and France and Germany are giving considerable subsidies to manufacturers of such trucks, little has been heard regarding the activities of the United States army in this regard. At the recent training camp at Chickamauga Park, Tenn., however, a White motor truck was placed

master who has one of them at his disposal.

In fact, so satisfactory to the army officers was the operation of the truck that they stated that it easily replaced six teams of four mules to the team. The up-keep expense, of course, of the motor truck as compared with 24 mules was very much in its favor. After the demonstration of the truck had progressed to a certain point where it was said by many of the army officers to exceed all expectations, various other experiments were tried.

For instance, during the army maneuvers the truck was used to distribute ammunition to the gray army. This work was started about nine o'clock in the morning and completed at twelve, a demonstration of speed never before accomplished in the

## REDUCING TRANSMISSION NOISES

**Analytical Methods by Which British Expert Tackles the Problem—Points Developed by Observation.**

Rapid strides have been made within recent years in reducing transmission noises. At the same time it is admitted among thinking automobile men that there is room for much further improvement. In this connection a number of points brought to light by a British engineer are pertinent, especially where they touch upon elements of the problem which have been little discussed hitherto.



THE OLD AND THE NEW IN ARMY SERVICE—THE MULE TEAMS AND THE WHITE TRUCK

in service, transporting provisions from Chattanooga to Chickamauga, a distance of some eleven miles, and gave a demonstration which is not likely to go to waste. Major G. G. Bailey, quartermaster of the Department of the Gulf, conducted the experiment, which proved so successful that it is the opinion of army officers that in the near future every army post in the country will be equipped with similar trucks.

Owing to the continuous rains, the road conditions during much of the time were unfavorable and yet the truck made daily trips to Chattanooga, and on many occasions two and three trips. The average time for the trip of 22 miles was two and a quarter hours—the best average by army mule teams, seven and a half hours. It has been said that an army advances on its stomach, showing how important to an army is the commissary department, and what advantage the great speed shown by the White motor truck offers the quarter-

army maneuvers, it having been stated by the officer in charge that six to eight mule teams, at the greatest possible speed, would have required until three or four o'clock in the afternoon. The advantage of the speed in actual warfare is almost beyond calculation, often meaning the saving of a corps or the entire army from defeat.

### San Antonio to Try Motor Fire Engine.

San Antonio, Tex., is the first city of the Lone Star State to give motor-propelled fire engines a thorough try-out. The first instalment of them will cost \$21,000 and will consist of two combination motor fire engines and hose wagons and a car for the chief, which will also carry a chemical engine. Every machine is guaranteed to have a speed of sixty miles an hour and to throw 600 gallons of water per minute. The same motors are used in propelling the car and working the pump. In addition to carrying seven men each, the fire engine will carry 1,000 feet of 2½-inch hose.

As he correctly indicates, there are no less than 11 points to be considered in studying transmission gear action with a view to reducing its noise, namely:

1. The mathematical correctness of the tooth cutting.
2. Correctness of spacing, i. e., shaft centers.
3. Effect of looseness in the bearings.
4. Effect of solid vs. "shell" type wheels.
5. Effect of fine vs. coarse pitch teeth.
6. Effect of distortion due to hardening.
7. Effect of quality of metal used.
8. Effect of speed—in other words, size of wheels.
9. Effect of length and stiffness of shafts.
10. Effect of shape of gear box and material of which it is made.
11. Effect of helical or compound pitch gears.

And he further indicates "a very curious but prominent fact in connection with gear boxes as a whole," namely that "while some are so objectionable in the way of



noise, as almost to merit the term silent, others exactly similar in design and workmanship are just the reverse.

"Not only is this the case," he adds, "but a pair of similar boxes which are noisy can sometimes be rendered quiet—in the ordinary acceptance of the term—by the simple exchange of one wheel from each to the other. Why should this be? One would think that with correctly cut teeth, correct workmanship in regard to shaft centers, and entire absence of any slackness or play in bearings we ought to have silently running gears. Yet we do not get them; at least, we cannot be certain of getting them. There is an absence of uniformity in results that is most puzzling. Nearly every maker of repute is wrestling with this problem, and it would doubtless surprise most people if they could only know the amount of time and money that has been, and is still being, spent upon it."

Dismissing the subject of gear design and construction after a somewhat lengthy treatment, which plainly reveals that the English constructors are as yet unaware of the advantages to be derived from the application of the grinding wheel after hardening, the writer advances to some rather interesting and suggestive conclusions. In regard to general construction, he observes:

"It seems to be generally accepted that solid wheels are best as being more 'dead' to vibration than the other type. Certainly if we take up a loose wheel of each kind and strike it after the manner of a gong the shell type gives more resonance. But this is one of the points on which it would be most useful to have particulars of actual results, as we believe there are examples of shell type gears which are comparatively quiet, whilst, on the other hand, the writer has had experience of solid ones which have been very noisy, and the question we have to solve is how far these results are attributable to the shape of the wheels only, and how far to other conditions? That the shell type of wheel is considered to be an offender is demonstrated by the fact that one frequently finds the interiors filled up with a disc of lead or red fiber, with the obvious purpose of deadening the vibration.

"An interesting suggestion was advanced to the writer a short time ago as to the possibility of molecular, and not merely mechanical, vibration being responsible for gear noise. We know, of course, what a noise can be emitted by the iron core of a solenoid under the influence of an alternating current, and the suggestion was that possibly some similar action is set up by stresses on gears and that noise results. . . . Personally, I should think mechanical vibration is enough to account for noise, and this brings us to an important consideration.

"In the case of a twenty-tooth pinion at 1,500 r.p.m., this means that 30,000 little

blows are being dealt by it in every minute to the teeth of the wheel into which it gears. It is true the strength of the impact is very small indeed, but if 'a multitude of little things is equal to a very big thing,' it is easy to understand the great aggregate result. Now, if we substitute for the twenty-tooth a fine pitch wheel with forty teeth, will the resulting noise due to 60,000 lighter blows be greater in proportion? But would the blows be lighter? It is clear that the working stress, i. e., the pressure of the driving upon the driven wheel measured at the pitch line, must be the same in both cases, as we have only changed one factor, the number of teeth in a wheel of given size; but the fact is that the pressure is not really continuous, but consists in the one case of 30,000 little pushes. In the second case there are 60,000 pushes in the same period of time, so they must be each of half the magnitude, or, in other words, the blows struck by the finer pitch teeth are individually only half as hard as those struck by the coarse pitch teeth.

"This being conceded, we should expect less noise from the fine pitch, yet everyone practically has adopted coarser pitches than used to obtain a few years ago, mainly, I believe, because in actual work the latter prove quieter and less subject to damage in gear changing.

"Except as regards its effect during the hardening process we should not expect one steel to be more or less noisy than another, i. e., if both have to be hardened in the usual way. But there is another aspect which should be mentioned, viz., that an attempt has been made to produce a specially treated steel that can be made hard and tough whilst it is in the blank, and yet not too hard for cutting. . . .

"We have only to listen to any car accelerating on one of its lower gears to admit that as the speed of the gear wheels increases so does the noise. We should infer, therefore, that slow speed means less noise. But as boxes are now designed there seems little hope of improvement in this direction, and when we leave the beaten path of convention we are at once accused of producing 'freaks.' It has often occurred to the writer that something might be possible by the adoption of a worm reduction as the first step in a gear box, whereby we might at once bring down engine revolutions to something like a sixth or an eighth of the speed. This would certainly give us slow speed gears which would probably be more silent, not only in running but in changing gears. Also it would permit of the use of a pair of even sized bevels for the live axle drive. It might indeed make possible a really practicable combination of change gears with back axle. Readers and makers who have time at their disposal may find it profitable to follow up this suggestion.

"It is generally conceded that shafts

should be as short and stiff as possible, and that a comparison of a modern up-to-date box with one of a few years ago will show what a change has occurred in this respect. And there can be no doubt it is a most important point. Second speed gears are nearly always noisier than first speed, and it is fair to conclude that this is mainly because they come more in the middle of the shafts, and furthest away from support. This effect is often greatly aided and abetted by the looseness of the sliding gears on their shafts, together with, as already mentioned, looseness of the 'spigot' end in its bush. Sliding gears must of necessity be an easy fit, or gear changing would be troublesome, but very great care should be taken to avoid making them the least bit easier than is absolutely necessary.

"We have heard two theories in regard to this point—firstly, that the more truly cylindrical a gear box is made the quieter it will be; and, secondly, that cast iron boxes are quieter than those made of aluminum. It would be useful to have the results of actual experience on these points. The difficulty is to get true diagnosis, e. g., if a cylindrical box has been made and found quieter than more conventional shapes, is the quietness due to the shape or to some other factor such as more or less rigid connection to the frame, or perhaps something in the gears themselves or their shafts? Is a box with long side arms reaching out and fixed to the sides of the main frame more noisy than one with short arms—or none at all—fixed to a sub frame or to special bearers across the main frame?

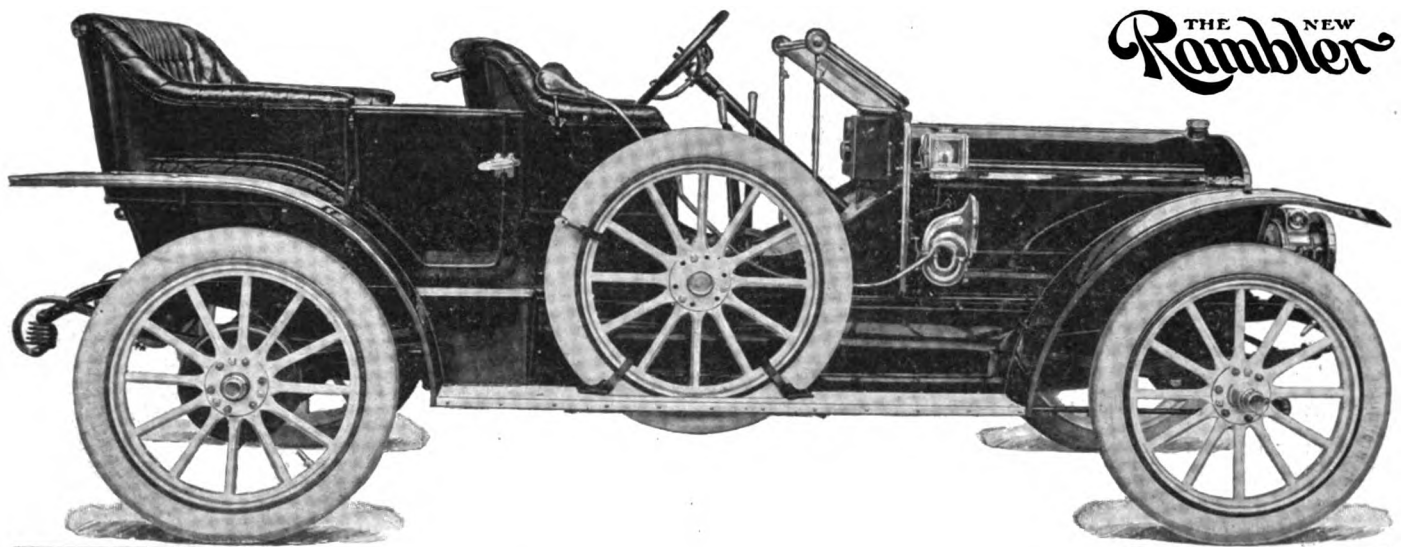
"We have seen helical tooth gears used for the constant mesh wheels, but, of course, for sliding gears they are impossible. It is not easy to say, therefore, what the effect would be if all the gears were made constant mesh and changing done by means of dogs. It is reasonable to suppose that if an experiment in this direction could be tried, with double helical gears well supported with bearings close up to each pair, a favorable result might be expected."

#### Where Tire Cost Comes High, and Why.

Automobile travel and rubber tires come high in Jamaica. The owner of an automobile livery there charges at the rate of 25 cents per mile for the use of his cars, figuring tire cost at the rate of 12 cents per mile. This latter sum is due largely to the manner in which the roads are repaired. They are macadamized, but when repairs are made, loose stone is thrown on the highways and left there without being rolled in. The result is, of course, exceedingly destructive to rubber tires of all sorts.

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**FEEDING OIL WITH THE GASOLENE**

**Duryea Reverts to the Subject and Emphasizes its Advantages—The Proportions Which he Recommends.**

There is unquestionable logic in the theory that a gasoline engine requires lubrication in proportion both to its speed and its power output; and this despite the fact that most lubricating systems now in use, even those commonly counted as being most successful, are governed entirely in response to the speed. As was pointed out in these columns recently, several foreign manufacturers have introduced oil-feed

"I have been using it in my Buggyaut engines for about three years and use a pint of oil to five gallons of fuel; a proportion of one to forty. This amount of oil does not smoke nor carbonize the plugs nor cylinders enough to mention. Many people are afraid to try it, but it has been proven successful beyond any doubt. On four cycle engines half the amount of oil with the fuel will allow much less to be fed through the usual oiling devices and give greater power and sweetness of running."

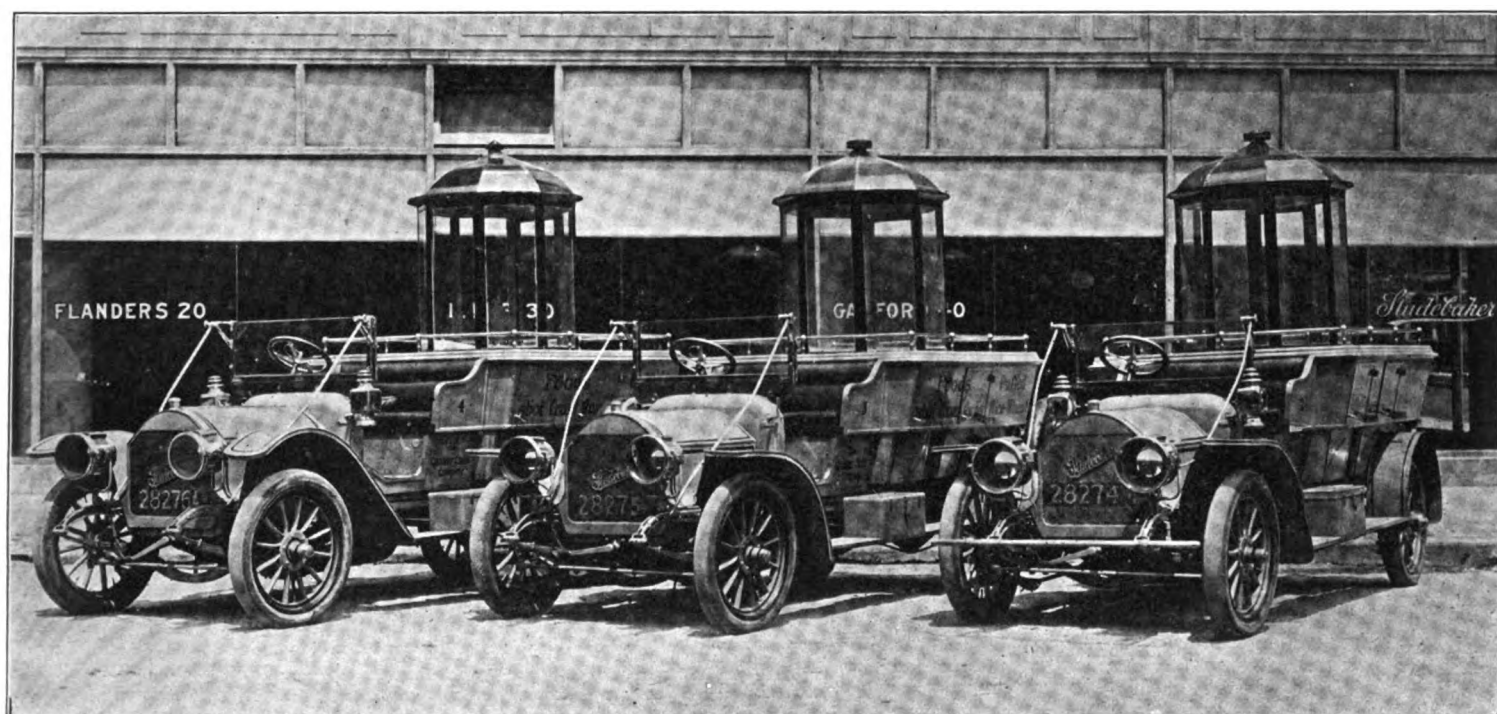
**The Shooting of Food on Motor Cars.**

Although the salient features of the three unique advertising automobiles used by the Quaker Oats Co. to distribute sample pack-

**IMPROVING CHAUFFEURS' BREED**

**Massachusetts Believes it is Performing that Service—The Methods Employed and the Results Obtained.**

It is becoming steadily more difficult for a person to qualify as a chauffeur in Massachusetts, and under the present requirements it is almost impossible for an applicant to secure a license unless he is thoroughly capable, declares the Boston Transcript. No drastic change has been made in the examination, but the standard has been raised little by little, with the result that only about two-thirds of the ap-



**TRIO OF STUDEBAKER-GARFORD CARS IN WHICH "FOOD IS SHOT FROM A GUN"**

control devices which are worked by the movement of the throttle.

Referring to such systems, Charles E. Duryea, the veteran inventor and automobile builder, promptly indicates that much the same advantages accrue to the feeding of a portion of the oil supply through the medium of the fuel itself. In commending the principle involved Mr. Duryea says:

"A very little oil will suffice if the speed and work done are both small, but when either the speed or the power becomes great then the engine must have oil. The splash system meets this need pretty well, with respect to speed, so long as there is a constant level to splash from.

"The ideal method, however, seems to be to feed the oil with the fuel. More fuel, more oil. Power and speed both require fuel and this automatically carries in the requisite quantity of oil. It cannot be beaten for two-cycle engines.

ages of its cereals in the rural districts, and shown in the accompanying illustration, have been described in the Motor World, the mechanical features of the device by which food is "shot from a gun" are not so generally known. The arrangement consists of a small blower connected with the fly-wheel and controlled by the operator through a friction clutch. The blower pipe is connected to the bottom of a conical bin into which the rice falls after being blown to the top of the dome, producing a startling effect. That the cars—Studebaker-Garfords—with their unique equipment attract a good deal of attention in the different parts of the country, goes without saying, and the manufacturers of the breakfast food are well satisfied with the advertising value of the cars. To each of them a certain territory has been assigned—the West, the East and the South being covered thoroughly.

plicants are now receiving licenses. Two years ago about three-quarters of the applicants were licensed and three years ago almost seven-eighths. During the past three years the number of persons applying for examination has increased rapidly.

Under the system now in effect less attention is given the written examination than the road test. Formerly each applicant had to answer a list of about twenty-five questions. Now there are only about twelve questions on the paper for the written examination. Nine of these usually deal with the automobile laws and rules of the road and the other three pertain to the mechanical control and proper operation of a motor vehicle. The same examination paper is not used right along, but there is a series of papers, and each week a different paper is used.

Under the former practice some applicants for chauffeurs licenses learned the

answers by rote and consequently the written examination was of little use. Under the new plan an applicant must have a good knowledge of the law and of the mechanism and control of a car, for he cannot tell what set of questions will be put before him. Care is taken in case an applicant comes up for a second or third examination that he gets a different set of questions each time.

The change in the written examination was made not only to prevent incompetent persons from passing, but also to enable competent operators to secure licenses. In many cases under the former plan, thoroughly competent mechanics and operators, but of little general education, were unable to pass the test on account of the numerous questions. It was considered unfair to them to refuse licenses, when they showed that, although unable to answer correctly a question about the rules of the road or the exact requirement of the law, when on the road they were thoroughly familiar with the requirements. With the shortening of the written examination its importance in the total examination was diminished.

The percentage and standard of the road test have, however, been raised. A chauffeur, having first taken the written examination, is required to present himself with a car for the road test. Regular tests are made in Boston and nine other cities, and special tests, if necessary, are made in other places. The car brought by the chauffeur is first examined by one of the corps of six examiners of the Highway Commission. If it lacks adequate brakes, muffler, horn or other necessary equipment, or seems in any way to be unfit for operation or a menace to public safety, the applicant is refused a test. If, in the opinion of the examiner, the car is in reasonably good condition and safe, the road test is begun, the examiner accompanying the applicant and directing him what to do, at the same time questioning him to bring out his knowledge of the general principles of operations, rules of the road and knowledge of mechanical detail.

In Boston, where the examination of chauffeurs is in charge of F. L. Austin, chief examiner of the Highway Commission, the test usually begins by taking the applicant to some little used street and requiring him to show whether he knows how to handle the car, to steer, operate the brakes and clutch, start, stop and back up. Some applicants show their incompetence in fifty feet. In other cases the examination includes a trip of three or four miles. The test at first ordinarily comprises a trip down and up a hill, which gives the operator a chance to show his knowledge of the brakes and the change gear systems.

Having demonstrated a knowledge of the elemental features of operation, the applicant is taken to a street where is a

little more traffic, and where at corners or elsewhere he is likely to encounter street cars and pedestrians. There the examiner learns whether the candidate knows what to do when suddenly confronted with the necessity of stopping his car to avoid a collision, or turning out to avoid a pedestrian. Many fail in this test by an absence of self-possession when confronted with a situation where quick action is necessary, and the examiners sometimes have to take possession of the car in order to prevent trouble. Some applicants seem not to know what the brake is for when they get into a tight place.

Having satisfied the examiner in the preliminary trials, the operator is then usually taken into a congested street, such as Boylston, Tremont, Washington or Summer. There he must display not only thorough familiarity with the operation and control of his car, but also complete knowledge of the law requiring him to signal with the horn, slow down when approaching a crossing, street car or pedestrian, stop when necessary. Furthermore he must demonstrate to the examiner's satisfaction familiarity with the Boston traffic rules, as to stopping at the curb, taking corners and passing other vehicles. While the applicant is taking this test he usually is questioned by the examiner as to his experience in driving, his knowledge of the mechanism, and as to what he would do under certain circumstances.

The road test is of varying length accordingly as the examiner feels it is necessary to try out the applicant. The primary consideration always kept in mind by the examiner is public safety, and in every requirement of the examination the applicant is tested with the matter of safety in mind. His judgment is also an important matter that is considered. The examiner, of course, cannot determine altogether the man's character. An entirely competent chauffeur, well posted on the law and on the operation of his car, may become a reckless driver. But in general it is a safe assertion that a chauffeur who receives a license under the present requirements knows how he ought to drive under all circumstances, and what he ought to do in almost every situation that is likely to arise.

If an applicant for a chauffeur's license fails to pass the examination on the first test he cannot take it again until two weeks have elapsed. If he fails on the second examination he must wait a month before coming up a third time, and if he fails the third time he cannot be examined a fourth time for a period of three months. If, however, an applicant fails on the written part of the examination but passes the road test, he can take another written examination without undue delay. Licenses are sometimes restricted to small cars or to a certain type of car such as a steam runabout, an applicant showing that he can operate a steamer being passed without

being asked to show special knowledge of a gasoline car. Operators of commercial vehicles are also restricted, an applicant who is employed to drive an electric truck not being permitted to handle a gasoline truck and vice versa.

So far this year approximately 3,500 examinations have been given and about 33½ per cent. of the applicants have failed on the first test. In the year ending Nov. 30, 1909, 4,629 examinations were given and 31.61 per cent. failed on the initial test. In 1908 a total of 3,290 examinations were given and 27.38 per cent. of the applicants failed on the first test. In 1907 about 12 per cent. failed on the first examination. In 1908, 16.15 per cent. failed on the first road test, and in 1909, 21.68 per cent. These figures indicate the result of raising the standard of the examination, and show that the State is steadily increasing its demands upon persons who wish to enter the occupation of driving automobiles for hire.

#### How Edge Would Relieve New Jersey.

Walter E. Edge, the Assemblyman who passed a reciprocity bill through the lower house of the New Jersey legislature only to have it killed by "Joe" Frelinghuysen in the Senate, has a new and rather fanciful scheme to settle all trouble and avoid the reprisals that have grown out of New Jersey's "hold-up" attitude. He would have appointed an active commission of two or three members of the legislatures of the States of New Jersey, New York, Pennsylvania, Massachusetts and Connecticut, which would meet before the legislative session and prepare a bill that would receive the recommendation of such a commission to their separate States with the hope that such legislation would be adopted by each.

#### Arrested for Posting Road Signs.

Charles E. Stagg, a Stratford (Conn.) sheriff, "got his name in the papers" last week by arresting a man employed by the Automobile Club of America, who was usefully tacking up road signs at the turns at crossroads and doubtful corners. Later the august Board of Selectmen of the one-horse village graciously granted permission, and the sheriff became very obliging and even assisted the sign poster in his work in an effort to undo the "misunderstanding," as it was termed.

#### How Evansville Evades State Law.

Although the state automobile law says that "no city, town or municipality shall require the payment of any license on any motor vehicle," Evansville, Ind., has been mulcting its owners of automobiles \$3 for a local license, and last week when Robert Hochner tested the ordinance it was sustained by a local judge, who held that the \$3 fee was a "special tax" and not a license. Hochner promptly filed an appeal against the decision.



## RECENT PATENTS.

963,055. Travel Recorder for Automobiles and Similar Vehicles. Charles A. Miller, Hazleton, Pa. Filed Nov. 26, 1907. Serial No. 403,943.

1. The combination with a casing composed of two interlocking parts, a clock mechanism having a rotary support for a chart or record sheet which is rotated thereby, contained in one part, a stylus, a spring maintaining the same in engagement with the chart, and a pendulous support for the stylus arranged to vibrate in a plane parallel to the record sheet, contained in the other part of the casing, these devices being arranged so that the stylus will be oscillated transversely to the normal line of travel of the chart by the vibrations of the casing incident to the ordinary running of a vehicle to which it may be attached.

963,098. Canopy Top for Vehicles. Charles E. Walters, Detroit, Mich., assignor to Michigan Steel Boat Company, Detroit, Mich., a Corporation of Michigan. Filed March 24, 1910. Serial No. 551,351.

1. In a canopy top for vehicles, the combination with a flaring bow, of an inclined brace member detachably engaging the bearing on the flaring portion of the bow, and an offset bearing on the lower portion of the bow for engagement with said brace in collapsed position.

963,187. Carburetter. Frederick W. Tuerk, Chicago, Ill., assignor to The Tuerk Novelty Company, Chicago, Ill., a Corporation of South Dakota. Filed May 15, 1909. Serial No. 596,162.

1. The combination with a float feed chamber connected with a source of hydrocarbon fluid supply, of a mixing chamber regulably connected therewith through a suitable port, a cup in the mixing chamber to receive the discharge from the float feed chamber, and a mixing cage supported below the cup comprising a plurality of wires spherically curved upon which the cup discharges through apertures in its bottom.

963,557. Drive Mechanism. Louis A.

Hill, Washington, D. C. Filed Nov. 19, 1909. Serial No. 528,947.

1. In a motor car, the combination of a hollow supporting axle, a shaft journaled therein, casings extending upwardly from the ends of said axle and provided above the latter with journal bearings and hollow stub axles, driving wheels on said stub axles, spindles journaled in said bearings and extending through said stub axles, means for connecting said spindles to the driving wheels, and actuating connections between said shaft and spindles, substantially as described.

963,564. Sparking Plug for Internal Combustion Engines. William H. Horner, Williams Bridge, N. Y. Filed Nov. 30, 1909. Serial No. 530,539.

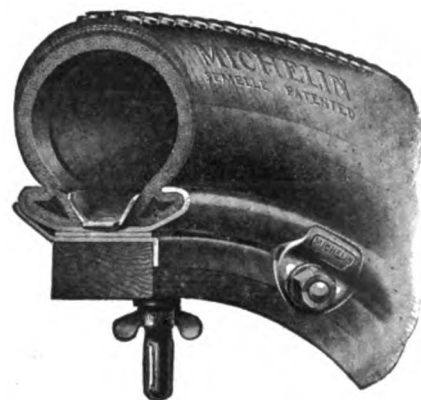
1. A device of the class described, comprising a tubular plug, one end of which is closed and the other open and provided with a contact device, a magnet at one side of said plug and the core of which passes therinto, said magnet and said core being insulated from said tube, a U-shaped spring placed in said tube and insulated therefrom, one arm of said spring being secured to the core of the magnet and the other arm being provided with a contact device.

963,609. Motor Vehicle. George William Mascord, London England. Filed Feb. 5, 1910. Serial No. 542,285.

In a motor vehicle, a combined driving and steering mechanism comprising a stub axle removably connected to the hub of a wheel, said stub axle having bearings thereon, said bearings being inclosed by a cylindrical member having a substantially conical extension, said extension being inclosed by said hub, a supporting member for the body of the vehicle, an end of said supporting member being inclosed by said extension and vertically journaled thereto, a ring encircling said cylindrical member, said ring constituting part of a universal joint, said universal joint being secured against rotation on said stub axle, a driving shaft secured to the universal joint, and an arm on said extension for steering the wheel.

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### TELLS OF BIG TRADE IN TEXAS

**Accessory Dealer from Lone Star State Dilates on Conditions There—Second Speeds Not Needed.**

All the enthusiasm which some of the automobile manufacturers already have shown for Texas as an automobile market and all that they may show in the future, in the way of establishing either selling or factory branches in the Lone Star State, is more than justified by the facts of the situation, in the opinion of R. A. Bond, who, as the secretary of C. L. & Theo. Bering, Jr., Inc., a firm which handles automobile accessories on a large scale in Houston, is visiting "the North" to buy goods and incidentally spread some of the "hot old Houston" doctrine. He declares that without personal investigation, few people in the trade realize the extent or vigor of the automobile business as at present conducted in Texas.

"In Houston," he declares, "where we have a population of about 100,000 people, there are over 1,300 automobiles, a proportion which I do not believe is equaled in any other city of the country. The money we are taking in over the counter every day for accessories would be unbelievable to some firms in the North who regard themselves bigger than we are, and the automobile, tire and accessory dealers in the Texas cities, almost without exception, are making money hand over fist.

"The automobile and the good roads movement are helping each other a lot. Right around our city over \$1,500,000 is being spent in road improvements, for shell roads which pack harder and improve the more they are used. Texas, too, is a state where the second speed is never used. There are no grades for which the second speed is suitable, the whole state, like the people themselves, being 'strictly on the level.'

"Crops are fine in the Southwest and money is plentiful and easy. Texas itself

is so big that even if a local crop failure or financial depression occurs in one part of the state, the people in the Texas cities hardly need pay any attention to it."

#### Changes in De Tamble's Selling End.

Changes in the affairs of the De Tamble Motors Co., of Anderson, Ind., have resulted in the transfer of the offices of the Car Makers' Selling Co., Chicago, Ill., to Anderson, where the latter company will conduct its business relating to the sale of the De Tamble car under the name of the De Tamble Motors Co. All contracts and obligations of the Car Makers' Selling Co., which has been handling the De Tamble output, will be continued and taken care of by the De Tamble Motors Co. For the territory west of Denver, Col., and including the Republic of Mexico, the distribution will be handled by the E. S. De Tamble Co., exclusive Pacific Coast distributor, which at present has its headquarters in Anderson, Ind., but which after October 1st will be located in Los Angeles, Cal.

#### Long Arm System in Trouble.

Two attachments aggregating \$3,090 against Stewart H. Chisholm, president of the Long Arm System Co., Cleveland, O., in favor of the Crucible Steel Co., have been served on the Knickerbocker Trust Co. of New York. One for \$2,340 was obtained in the Supreme Court on the ground of non-residence, on a claim he failed to pay for merchandise delivered to the Long Arm System Co., and the other, for \$750, was obtained in the City Court for the alleged non-payment of a note of the company for that amount.

#### Diamond Opens Paris Branch.

A branch in Paris, France, has been opened by the Diamond Rubber Co., Akron, Ohio, for the supplying of Diamond tires to American motoring tourists and to the French trade. It is under the management of Keith L. Goode, an American who has resided in Paris for 15 years and who is a brother of the manager of the Packard branch in Paris.

### SELLING BUICKS AT LOW PRICES

**Dealers' Discounts to Retail Buyers of "Slightly Used" Machines—How the New York Branch Does It.**

Bargain inducements for the disposal of old cars in the way of demonstrators or machines with special bodies are by no means rare on the part of factory branches, without creating the objection that the branches are cutting prices on the lines they represent, but the Buick Motor Co.'s branch on Broadway, New York City, has developed the "bargain" feature to such noticeable proportions as to invite attention. It has been known for some time that special inducements, involving cars at prices considerably under list, are being held out at the New York store to prospective buyers, but recently the bargains have attained a remarkable continuity and volume of flow and have borne a close resemblance to the regular factory product as handled by agents at list prices.

Visiting the Buick's much-advertised "Wednesday sale" this week, a Motor World man found that the company had employed the term "slightly used cars" advisedly, the characterization being found to be exceedingly literal. Indeed, the impression that the "used" cars examined were virtually new in the ordinary acceptance of the term, was confirmed by the statement of a salesman that none of them had been driven more than 10 miles or "just enough to try them out." "But after that," he added, "we of course could not offer them as new cars."

The interview further developed the point that the Buick bargain system has placed the ordinary buyer in almost the same position as any uptown garageman who might desire to turn a Buick sale. The branch, it was explained, having no local agents to protect, can sell at any price it chooses. Hence its ability to grant a 15 per cent. inducement to the bargain

## THE MOTOR WORLD

### CHANGES AMONG THE TRADESMEN

#### Shifts in Position for Men in the Motor Car and Accessory Industry—Franklin's List of Officers.

hunter on any new car, or, in the case of the "used" proposition, nearly 20 per cent.

When the Motor World man called on Wednesday to see "Today's bargain," he was told that limousines were on the day's bargain list, but that a very fine roadster also was to be had at a sacrifice. In a morning paper, "10 No. 10 Buicks" had been offered for "quick sale." Subsequently it developed that not only this roadster, but also a small touring car with detachable tonneau was to be slaughtered. The Motor World man confined his attentions to these two smaller cars. He was told that the bargain price of the single rumble seat roadster was \$850, instead of the \$1,050 list price.

"Of course," remarked the obliging salesman, "you understand that this is not what you may call strictly a new car. That is, it has been used as a demonstrating car once or twice, but it has not been run more than about 10 miles. In fact, I can guarantee that it has not gone beyond 110th street. That is why we knock off 20 per cent. from the list price."

Asked how it was possible for the Buick company to sell practically new cars for a lower price than an agent would have to pay, the young man became voluble.

"You see," he hastened to explain, "the cars have been used, there is no getting around that, and we can sell used cars for whatever we please. With new cars, of course, it is slightly different. The Buick company has no agents in this city; this is a factory branch, and we can sell at what we please. We will sell you a car for the same price that an uptown garage would have to pay—namely, 15 per cent. off list price—for we don't care for that part of it. It is immaterial to us whether you own a garage or not; we sell you the car at a material reduction off the listed price, and you ought to be satisfied." The discussion then turned to the small touring car with detachable tonneau. This car was plainly marked at \$880, complete with top, etc., the list price of the same car with like equipment being \$1,150.

"This car has been used as a demonstrating car over a total distance of about 10 miles, just around the neighborhood, and Central Park. We give you this car as the greatest bargain—\$270 off the list price, and run just long enough to show its perfect working. We have no 1909 cars here in stock or anywhere on hand. All were sold out long before the end of last season."

#### Lisbon Welcomes a Truck Project.

Lisbon, Ohio, is to have a new company, which is to be known as the Lisbon Auto Truck Co., promoted by A. H. Wyatt and W. H. Kitto, of Cleveland. The business association of Lisbon has arranged to underwrite the local absorption of \$25,000 worth of the \$50,000 of stock. Kitto has promoted similar projects in the past.

By the appointment of J. E. Walker, former advertising manager of the H. H. Franklin Mfg. Co., Syracuse, N. Y., to the post of sales manager, and other changes in the organization, the list of officers has been altered correspondingly. Under the new arrangement the list of officers is as follows: H. H. Franklin, president; F. A. Barton, secretary and treasurer; T. R. Lip-pard, general manager; H. B. Webb, comptroller; J. E. Walker, sales manager; J. G. Barker, assistant sales manager; Herbert Hess, manager of the commercial car department; J. N. Alsever, advertising manager.

Resigning the competition worry of maintaining a Chicago agency for automobiles, Joseph F. Gunther, a veteran of the Windy City's automobile row, has given up the Apperson agency and has started a garage at Halfday, Ill., on the main touring route of the district. He will content himself with selling accessories and supplies and garage service.

Louis Geyler, well known throughout the trade and long a dealer on Chicago's automobile row, has been appointed agent of the Hudson car for the Chicago territory. He at present is located at 1532 Michigan avenue, but is shortly to move to the Hudson's new building on the same street, between 25th and 26th streets.

Alexander G. Hendel has resigned as sales manager of the automobile department of Sears, Roebuck & Co., of Chicago, Ill., to join the sales forces of the Bartholomew Co., of Peoria, Ill., which makes the Glide car. He had charge of Sears, Roebuck automobile sales for two years.

Walter F. Winchester, widely known as the winning Pierce-Arrow driver in the 1909 Glidden tour, has severed his connection with the Pierce-Arrow Motor Car Co., Buffalo, N. Y., to become the Pierce-Arrow dealer in Jacksonville, Fla. He will head the Winchester Motor Car Co.

Edward R. Hewitt, of New York, former head of the Hewitt Motor Co., which was absorbed by the Metzger Motor Car Co., of Detroit, Mich., has joined the latter company as a stockholder and mechanical expert. He is a son of Abram S. Hewitt.

George R. Moran has joined the engineering and sales force of Barthel, Daly & Miller, New York City, importers of Schaefer ball bearings. He has started on a Western trip, calling on the motor car manufacturers.

J. C. Howell has resigned as assistant

manager of the Warner Instrument Co., of Beloit, Wis. He has been appointed advertising manager of the Reed & Barton Co., silversmiths, at Taunton, Mass.

James Bourquin has been made general factory manager for the Paige-Detroit Motor Car Co., of Detroit, Mich. He formerly was a superintendent for the Chalmers Motor Co., of Detroit.

W. O. Rutherford has been appointed assistant manager of sales for the B. F. Goodrich Co., of Akron, Ohio. His activities will be directed largely to the sale of the company's tires.

George T. Briggs has been appointed sales manager for Wheeler & Schebler, of Indianapolis, Ind. He formerly was manager of the company's Chicago branch.

#### Wagenhals to Make Three-Wheelers.

Three-wheel commercial vehicles are to be made in Detroit, Mich., according to the plans of the Wagenhals Commercial Motor Car Co., which has been formed in St. Louis, Mo., but which is to make Detroit its headquarters. The car which the concern purposes to manufacture is to have a carrying capacity of 800 to 1,000 pounds, weighing 1,600 pounds complete with a 16 horsepower engine. It is designed by William G. Wagenhals, who has invented a number of devices relating to electric railroads.

#### Goodrich Plans \$10,000,000 Increase.

The B. F. Goodrich Co., of Akron, O., has made plans for a \$10,000,000 increase of its capital stock in 7 per cent. cumulative preferred shares. Of this amount \$5,000,000 is to be offered to stockholders at par, while the remaining \$5,000,000 will be in the form of a 50 per cent. dividend to the holders of the \$10,000,000 commonstock now outstanding.

#### Hupp Interested in Rotary Valve Car.

The Rotary Valve Motor Co., Detroit, in which R. C. Hupp, the head of the Hupp Motor Car Co., is largely interested, is building a six-cylinder car employing an engine having rotary valves and other unusual features. Mr. Hupp is also a part of the Hupp-Yeats Electric Car Co., which shortly will market an electric coupe.

#### Collins Gear Purchases a Plant.

The Collins Gear & Motor Co., of Pittsburgh, Pa., is to make automobile axles, gears and motors in a factory which it has purchased at Canonsburg, Pa. The plant formerly was occupied by the Simpson Stove & Mfg. Co.

#### Pope Forces in Annual Conference.

The managers and travelers of the Pope Manufacturing Co. are this week holding their annual conference at headquarters in Hartford, Conn.; it will extend over a period of several days.

**GENERAL MOTORS REORGANIZATION**

**It is Near at Hand, According to a Broker's  
Advices—Buick Factories Resuming  
on a Reduced Scale.**

Negotiations for a proposed reorganization of the affairs of the General Motors Co. are almost completed and the full plan shortly is to be announced, according to a communication which a Chicago stock and bond house, John Burnham & Co., is sending to its customers. The Chicago concern has written to those of its clients who might be interested in General Motors doings, advising them that an announcement may be expected around the first of September and pointing out in a vague way some of the causes that have made General Motors shares decline despite the roseate probabilities of enormous dividends (in stock) which have been presented by the "wizard" of the enterprise. The letter in part is as follows:

"Since the announcement on July 15th last of a proposed reorganization affecting the General Motors Co., many rumors have been circulated as to the terms of the pending deal and the possible result on the price of the company's stock. The general market tone has been very weak and this condition, coupled with the uncertainty of the success of the General Motors Co.'s negotiations, has caused a decline of several points in the bid prices on both common and preferred shares. We are informed from sources which we consider reliable that the new plan is practically closed and that a public announcement of the terms will probably be made before September 1st next."

Reorganization also is being looked forward to with considerable eagerness in Flint, Mich., in relation to the Buick Motor Co. The Buick factories, which when in full operation employ from 15,000 to 16,000 men, started to close down about the middle of last month, and in two weeks from that time every employe of the company was out of work except those retained for inventory and for the necessary clerical, stock and shipping activities. It had been announced by General Manager W. C. Durant that if the shut-down occurred before the first of October the factories could not possibly resume operations before that date. However, the factory manager has announced that 11 of the 14 Buick factories will resume business this week with a total force of 2,000 or possibly 2,500 men, and that during the week an additional force of 1,000 will be added.

**Hudson Holds a Selling Convention.**

District sales managers of the Hudson Motor Car Co., Detroit, Mich., gathered at the factory for two days last week to at-

tend the annual convention of the executive officers, salesmen and advertising forces of the concern. The latest wrinkles in automobile salesmanship were expounded by President R. D. Chapin and by E. C. Morse, the sales manager, and C. C. Win-ningham, the advertising manager. Edward H. Broadwell, the new second vice-president and director of sales for the company, addressed several sessions of the convention, which ended with a dinner and theater party.

**Jewel Makes an Offer to Creditors.**

As a means of satisfying its creditors, the Jewel Carriage Co., of Cincinnati, Ohio, which recently went into bankruptcy, is submitting a proposition through a creditors' committee consisting of Elmer J. Hess, C. W. Shipley, C. G. Schultz, Fenton Lawson and W. E. Muench. The offer is 60 per cent. in cash on claims of general creditors under \$500, and \$300 on all claims above \$500, the balance to be paid in automobiles at the list price of \$1,350 each. The real estate is to be turned over on a trust basis at a valuation of \$100,000, to be administered for the creditors, and will be leased by the company.

**Ford Bond Filed; Injunction Lifted.**

An order suspending the injunction against the Ford Motor Co., of Detroit, Mich., pending an appeal to be taken to the United States Circuit Court of Appeals, has been made by Judge Hough, of the United States Circuit Court for the Southern District of New York, coincident with the filing of the required \$350,000 bond for the Ford company by the Fidelity & Guarantee Co., in the infringement case brought by George B. Selden and the Columbia Motor Car Co. Judge Hough also ordered that the Ford company have its appeal ready to be heard on November 7th.

**Anhut Successor to Make Fours.**

Having dropped the name of the Anhut Motor Car Co. and raised its capitalization to \$300,000, the Barnes Motor Car Co., of Detroit, Mich., has completed its reorganization, with William M. Walker as president, Charles E. Henkel as secretary and treasurer, and Harry C. Barnes, from whom the company now takes its name, as factory manager. The creditors have granted the company 18 months extension, and it will undertake the manufacture of a four cylinder car at \$1,400 in addition to a six cylinder model at \$2,250.

**Canadian Ford is Expanding.**

The Ford Motor Co., Ltd., of Walkerville, Canada, located on the river front opposite Detroit, Mich., has commenced the erection of a \$30,000 addition to its factory. The structure will be of reinforced concrete, 90x70, two stories high and a basement. It will have a floor space of 20,000 square feet.

**MOON LEAVES THEM IN DARKNESS**

**Investors and Creditors Seek Missing Chi-  
cagoan—Get Cheerless Report on His  
"Revolutionizing" Transmission.**

After giving up their money to an enterprising promoter known as G. Frank DeWitt Moon, who pictured prospects of the fortunes to be made in backing his new transmission system for automobiles, a number of Chicago investors, acting with an almost equal number of creditors, have endeavored to discover how badly they are stuck, and their discoveries indicate that it is about 100 per cent. The Moon in question is not shedding any light that will be of assistance to them, as he has disappeared, but the "moonstruck" victims think that they have learned the worst without his aid.

With a patent on his transmission, Moon proposed to "revolutionize" automobile construction and to let a few of his fellow men get rich in helping him do it. He got control of some land and started to build a pretentious factory. When things grew too warm he took "French leave." An investor in the enterprise swore out a warrant for him, charging embezzlement, and the contractor who had done the foundation work on the factory also woefully announced that he done about \$8,000 worth of work for Moon for which the latter had not paid a cent. Builders, plumbers, heating men and others joined in the chorus. Some hope was injected in the breasts of his mourners when a search disclosed the two sample automobiles which Moon had built to demonstrate his transmission idea, but consultation with an expert revealed the joy killing information that there was one serious objection to the practical use of the transmission—i. e., that it would require an engine of twice the ordinary power of an automobile to make it work.

**Michigan Body Factories Consolidated.**

The Monroe Body Co., Pontiac, Mich., has been reincorporated, with capital stock of \$500,000, and has taken over the plant, equipment and all assets of the Yeomans Body & Box Co., Detroit, and will operate plants in both Detroit and Pontiac, with the main offices at their Detroit plant on Fort street west. The officers of the new organization are as follows: R. F. Munroe, of Pontiac, president and general manager; Alfred Fritzsche, of Cleveland, vice-president; John C. Rittenhouse, of Cheboygan, Mich., treasurer, and Fred H. Yeomans, of Detroit, secretary. William T. Hubbard, of Toledo, Ohio, with the above officers, constitute a board of directors. J. M. Parker, the former secretary of the Monroe Body Co., will act as assistant to the president. A. W. King will be factory manager.

**THE WEEK'S INCORPORATIONS.**

Dover, Del.—The Collins Gear & Motor Co., under Delaware laws, with \$250,000 capital.

Detroit, Mich.—Cooley Automobile & Tire Co., under Michigan laws, with \$50,000 capital.

Plainfield, N. J.—Motor Parts Co., under New Jersey laws, with \$125,000 capital; to sell automobile accessories and motor parts.

Chicago, Ill.—North Side Automobile Club, social, without capital. Corporators—John F. Stevens, M. W. Cluxton, V. R. Lynch.

Spokane, Wash.—Regal Garage Co., under Washington laws, with \$10,000 capital. Corporators—H. F. Preston, E. C. Finlay, George F. Preston.

Jackson, Tenn.—Jaskson Garage Co., under Tennessee laws, with \$10,000 capital; to conduct a garage. Corporators—J. A. Pape, S. M. Spiller.

Pittsburg, Pa.—Universal Auto Bureau Supply Co., under Delaware laws, with \$100,000 capital; to manufacture and deal in automobiles and accessories.

Dayton, Ohio—Everitt Motor Car Co., under Ohio laws, with \$50,000 capital; to deal in automobiles. Corporators—W. A. Shroyer, L. A. Seward, D. H. Pfoutz.

Chicago, Ill.—Birchwood Garage, under Illinois laws, with \$2,500 capital; to conduct a garage. Corporators—M. L. Moody, P. W. Moore, J. L. Meier, Anthony Brandt.

Chicago, Ill.—Furner Motor Car Co., under Illinois laws, with \$25,000 capital; to manufacture and deal in motor cars. Corporators—E. Furner, A. W. Eschert, W. J. Bell.

Fond du Lac, Wis.—Crescent Motor Co., under Wisconsin laws, with \$20,000 capital; to deal in motor vehicles. Corporators—W. C. Reinig, F. G. Hulbut, W. A. Meiklejohn.

Minneapolis, Minn.—Alco Motor Sales Co., under Minnesota laws, with \$25,000 capital; to deal in automobiles. Corporators—R. J. Powell, M. R. Nyman, H. W. Volk.

Chicago, Ill.—Chicago Regal Motor Co., under Illinois laws, with \$10,000 capital; to deal in automobiles. Corporators—Glenn Holmes, Donald H. McGilroy, Earle F. Tilley.

Los Angeles, Cal.—Hamilton Motor Co., under California laws, with \$50,000 capital. Corporators—N. W. Hamilton, E. J. Pyie, A. A. Genereaux, Alice Hamilton, E. W. Leslie.

Dayton, Ohio—The Dayton Commercial Auto Truck Co., under Ohio laws, with \$50,000 capital. Corporators—L. L. Welmer, H. A. Lewis, G. W. Ozias and C. A. White.

Brooklyn, N. Y.—Barnum Auto Co., under New York laws, with \$1,000 capital;

to deal in automobiles. Corporators—Edward H. Barnum, Carrie W. Barnum, Fred Schwartz.

St. Louis, Mo.—The Lindell Motor and Auto Parts Mfg. Co., under Missouri laws, with \$6,000 capital. Corporators—E. B. Campbell, Alfred A. Wagner and George S. Brauks.

Minneapolis, Minn.—Cycloid Mfg. Co., under Minnesota laws, with \$600,000 capital; to manufacture automobiles and trucks. Corporators—A. Paegel, W. P. Cockey, C. O. Furbush.

Detroit, Mich.—Detroit Auto Welding Co., under Michigan laws, with \$10,000 capital; to conduct a repair shop. Corporators—Eric Groul, George B. Wootten, Samuel May.

Boston, Mass.—Lozier Sales Co., under Massachusetts laws, with \$50,000 capital; to deal in automobiles and motor vehicles. Corporators—H. A. Castle, J. E. Carroll, R. H. Wesson.

Chicago, Ill.—Manufacturers' Auto Tire Co., under Illinois laws, with \$2,500 capital; to manufacture automobile tires. Corporators—W. A. McGivern, John F. Clare, Edward Byrnes.

Chicago, Ill.—Chapin Auto Supply Co., under Illinois laws, with \$50,000 capital; to deal in automobiles and supplies. Corporators—Daniel C. Beard, Glenn E. Plumb, Morgan L. Davies.

Cleveland, Ohio—Roy Ransom Auto Livery Co., under Ohio laws, with \$10,000 capital; to conduct an automobile livery and garage business. Corporators—Roy Ransom and others.

Detroit, Mich.—Horton Autoette Mfg. Co., under Michigan laws, with \$100,000 capital; to manufacture two-wheeled automobiles. Corporators—A. J. Potter, Allen Horton, H. B. Schantz.

Indianapolis, Ind.—Mais Motor Truck Co., under Indiana laws, with \$500,000 capital; to manufacture automobiles and motor trucks. Corporators—A. W. Markham, E. W. Spencer, Charles Fisher.

Syracuse, N. Y.—Central City Motor Car Co., under New York laws, with \$10,000 capital; to deal in automobiles and conduct a garage. Corporators—Alvie G. Williams, A. H. Hughes, W. S. Curtiss.

Rochester, N. Y.—Kline Motor Car Co., under New York laws, with \$10,000 capital; to deal in automobiles and conduct a garage. Corporators—George Schaick, George W. Schaick, John E. Whitbeck.

New York City, N. Y.—Motor Express Co., under New York laws, with \$300,000 capital; to maintain an automobile package delivery system. Corporators—Edward Roche, Enoch Levy, Louis Rosenblum, all of New York City.

Canonsburg, Pa.—Collins Gear & Motor Co., under Delaware laws, with \$250,000 capital; to manufacture gasoline motors

and machinery. Corporators—F. R. Hansell, Philadelphia; E. T. Vennel and G. H. B. Martin, both of Camden, N. J.

New York City, N. Y.—The Garage Service of America, under New York laws, with \$25,000 capital; to maintain a garage and establish general mercantile agency in relation to automobiles. Corporators—R. H. Wagoner, L. C. Twombly, R. C. Davies.

Richmond, Va.—Virginia Taxicab Co., under Virginia laws, with \$100,000 capital; to carry on a transfer business, operate sightseeing cars and other automobiles and vehicles. Corporators—J. W. Travers, Walter Holliday, J. A. White, Stuart McLean.

New York City—Moore Auto Skid Preventer Co., under New York laws, with \$500,000 capital; to manufacture motors, engines, automobiles and devices and appliances for the safety of automobiles. Corporators—F. J. Berry, E. Lewin, M. Wirth.

New York City, N. Y.—Pennsylvania Motor Car Co., under New York laws, with \$50,000 capital; to manufacture all kinds of motors, engines, automobiles, motorcycles, aeroplanes, motor boats, etc. Corporators—D. Hamilton, A. A. Russel, L. H. Denny, all of New York City.

**Increases of Capital.**

Cleveland, Ohio—Booth Demountable Rim Co. increases capital from \$50,000 to \$100,000.

Kansas City, Mo.—Southwest Automobile College Association increased capital from \$3,000 to \$10,000.

Detroit, Mich.—Michigan Motor Car Co. increases capital to \$100,000.

Detroit, Mich.—Goodfellow Tire Co. increases capital from \$30,000 to \$250,000.

Pontiac, Mich.—Monroe Body Co. increases capital from \$50,000 to \$500,000.

Detroit, Mich.—Chalmers Motor Co. increases capital from \$300,000 to \$3,000,000.

Detroit, Mich.—Krit Motor Car Co. increases capital from \$100,000 to \$250,000.

**Worth Forced into Receiver's Hands.**

Creditors of the Worth Motor Car Mfg. Co., Kankakee, Ill., have forced the concern in a receiver's hands. They charge that Samuel R. Hunter, vice-president, and W. A. Duncan, a stockholder, removed machinery and automobiles valued at \$6,000 from Kankakee to Gary, Ind. Judge Sanborn, in the United States District Court, at Chicago, has issued an injunction restraining the defendants from disposing of these assets. The company owes about \$5,000 and has assets estimated at \$25,000.

**Will Handle Lion in the East.**

Everett S. Hilton and W. H. Bowers have taken the New York City agency for Lion cars, made by the Lion Motor Car Co., of Adrian, Mich. They also will control New England and the entire state of New York.



## IN THE RETAIL WORLD.

The Nebraska Buick Co. has opened a branch in Sioux City, S. D. S. D. Douglas is the manager.

The Florida Motor Co., of Jacksonville, Fla., will erect a fireproof garage and salesroom on Forsyth street, between Liberty and Market.

The Boyd Automobile Co., of Kansas City, Mo., has added Hudson cars to its line of Haynes cars. Its salesrooms are at 31st and Main streets.

The livery stable owned by Thomas F. Ryan, and located at 139 East 69th street, is being remodeled into a garage. The work will cost about \$18,000.

The Pacific Motor Car Co. has taken the agency for Reo cars, covering the territory north of Bakersville, Cal. Stevens-Duryea also are handled by this company.

The Abbott-Detroit Motor Co., of Kansas City, Mo., has taken up new quarters at Admiral boulevard and McGee street. Accessories and supplies have been added to its line.

The Gillis-Strickland Motor Co., of Rochester, N. Y., has changed its name to Gillis-Baird Motor Co. H. L. Baird has bought an interest in the firm from G. F. Strickland.

With the intention of specializing in the second hand trade, Edward Ellis, of Minneapolis, Minn., has started in business in the Twin Cities. His headquarters are in the Security building.

O. H. Driscoll has been appointed agent for the Mitchell and Hupmobile cars in Trenton, N. J. He was a member of the firm of Twist & Driscoll, but is now conducting the business alone.

Washburn Bros., Buick agents for South Pasadena, Cal., have taken a three-year lease on the new Jacobs building at 1132 Madison street. They expect to establish their permanent location in this building.

Plans are under way for the construction of a garage on Central avenue, Dover, N. H., which will be occupied by W. Kimball. Kimball formerly was interested in Frank Bradley's garage in the same town.

The Genesee Motor Car Co., recently organized at Elmira, N. Y., has opened its headquarters at 108 West Church street. Cadillac cars will be shown exclusively by the new firm, of which I. D. Waterbury is the manager.

Austin King and O. F. Parson, both of Vicksburg, Miss., have gone into partnership and opened a garage and repair shop on South Washington street in their home town. In addition they will conduct a renting service.

The Highland Motor Garage on 27th street, Milwaukee, Wis., has changed hands. The new owner is A. F. Eckstein, and he will make a specialty of dealing in second-hand cars and in supplies, although the

former renting service also will be carried on.

E. M. Leach, who two months ago organized the East Douglas Automobile Co. at Wichita, Kan., has sold his business to W. B. and R. B. Ferris, of Cherokee, Okla. The garage is located at 1236 East Douglas avenue.

Under the style of the Northcutt-Smith Co., a new firm has entered the automobile business, with headquarters at 11 Auburn avenue, Atlanta, Ga. Hudson, Chalmers and Pierce-Arrow cars will be handled by the new concern.

Mexia, Texas, has heard the call of the motor car and will soon boast of its first garage. The structure is being erected by R. J. Jackson, and will contain a fully equipped machine shop as well as an assortment of accessories.

The Love Garage Co., of Columbus, Ohio, has made an assignment of all its property to E. E. Minnick. The president of the company is James T. Love. B. S. Myers, Ira Armstrong and A. M. Crumrine have been appointed appraisers.

Under the style Snyder Brothers, a new firm has entered the garage business in Beaver, Pa. The structure which is being built for them at the corner of Third street and East End avenue will be 50 x 70 feet, of concrete and cement blocks.

Harry Chambers, who conducts a garage and repair shop at Fourth and Franklin streets, Columbus, Ind., has bought a garage at Shelbyville, Ind., and is moving his equipment to the new place. His old garage probably will be torn down.

The McAllister Bros. Motor Car Co., Pittsburg, agents for the Cadillac line, have moved into new quarters. Their new building, which is not quite complete, is at Baum and Beatty streets, and said to be one of the finest in Pennsylvania.

Owen H. Fay, Elmore agent in Chicago, Ill., has surrendered the agency, and the interests of the company will now be looked after by G. W. Goss, of the same city. Goss is the brother of A. H. Goss, secretary of the General Motors Co.

W. T. Haines, Jr., a former agent for the W. C. Moore Auto Co., Wilkesbarre, Pa., has gone into business for himself. He is building a garage on Hanover street, where he will sell second hand cars and conduct a garage and renting service.

The Providence Auto Equipment Co. has purchased the entire stock of the Angier Co.'s Providence branch, which has been closed out. F. F. Kellogg is manager of the Equipment company, with headquarters at 9-11 Dorrance street, Providence, R. I.

Laurel, Del., is to have its first public garage, which will be located at the corner of Delaware avenue and Front street. Joshua Marvil will establish therein a repair shop, and also conduct a freight trans-

port service between Laurel, Lewes and Rehoboth.

Robert C. Howard, formerly the Mitchell agent at Atlanta, Ga., has severed his connection with the Mitchell company and now handles the Parry car. He is now located at 38-40 Auburn avenue, where he does business under the style the Parry Motor Car Co.

The Consumers' Automobile Tire & Tube Co. is the title of a new company formed at Chicago, Ill., with headquarters at 1515 Michigan avenue. J. J. Casey is the manager of the concern, which, as its name indicates, expects to deal in automobile and motorcycle tires.

The Dayton Motor Car Co., manufacturers of the Stoddard-Dayton cars, have bought out the Motor Car Repair Co., of Wilmington, Del., and will continue the business as a Stoddard-Dayton branch, under the style the Stoddard-Dayton Auto Co. Frank S. Garrett is the new manager.

The Standard Motor Car Co., of Los Angeles, Cal., has moved into new and more commodious quarters at 12th and Olive streets. The salesroom is 50 x 70 feet, while the workshops cover 100 x 70 feet. E. Roger Stearns is manager of the company, which will continue to feature Ford and Velie cars.

Leon T. Shettler, Pacific agent for the Apperson cars, is arranging for an invasion of Fresno, Cal., with a branch office. The San Francisco branch has been placed in charge of John W. Swan, of San Diego, Cal., while the Los Angeles main office soon will be removed to Pico street, between Main and Hill streets.

The Southern California Knox agency at Los Angeles, Cal., henceforth will be known as the Doerr-Brown Co., under which name it has been incorporated. Its new headquarters will be 1205 South Olive street, and Albert Doerr will be the new manager. His partner, H. T. Brown, will handle the selling end of the new firm.

Work has been started on a new garage and salesroom for W. H. Barnes, agent for the Apperson "Jackrabbit" and Rapid truck, at Seattle, Wash. The new structure is located on Senaco street just east of Sixth avenue, and will be three stories high, of brick and concrete, 60 x 60 feet. As soon as the building is finished Barnes will add Gleason delivery wagons to his line.

Taking over the agencies of the Baker electrics formerly handled by the Robertson Motor Co., and the Hudson, formerly shown by the Barclay Auto Co., the Alco Motor Sales Co. has been established at 832-836 Hennepin avenue, Minneapolis, Minn. Alco cars have been added to the above two lines and M. R. Nyman has been chosen president of the company. Cordial relations are said to obtain between the three firms concerned in the agreement.



### An Unparalleled Reliability Test

**W**HITE standard auto trucks are successfully meeting the requirements of probably the most severe reliability test to which a motor truck was ever put. The Goodrich Good Roads Marking Tour, covering the whole United States, uses White 1½-ton gasoline trucks.

### What It Means

These trucks—carrying heavy loads—in the hands of unskilled laborers—in all kinds of weather—meeting all road conditions—have covered hundreds of miles (over 2500) of Ohio, Pennsylvania and New York territory without one cent of cost for repairs.

### White Motor Trucks

This test proves conclusively the reserve power in the White gasoline engine—the reserve strength in the White frames and other parts. Such reliability does not happen—it is not a matter of chance—but the result of good building, of correct design and proper materials.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO



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#### Continued Need for Demonstrations.

By no means has the day of demonstrations passed, despite the optimistic assertions occasionally made by commentators who might be considered in a position to know. Every little while some enthusiast arises to declare that customers no longer require demonstrations and are perfectly willing to lay down their money for cars purely on the latter's reputation. But the average automobile salesman still finds demonstrations an important part of his selling.

It is true that the character of demonstrations has changed vastly from pioneer days. At one time people demanded demonstrations to see if the cars actually would run. Now they take it for granted that a car will run, but like to sense how it runs. The silence of the motor, the ease of the springs and upholstery, the comfortable proportions of the seats and floor space in actual road work, the manner of gear

changing and the general "feel" of the car in service are the points that tempt intending purchasers to give the time necessary for a demonstration. This particularly is the case with those who have owned cars or own them at present and are considering new machines.

Intelligent salesmen regard it as something of a victory if they can get a prospective customer to take a demonstration. The act indicates a favorable inclination toward the car. What is quite as important, it gives the salesman a period of uninterrupted time in which to use his persuasive and hypnotic powers to close the order. He has the customer all alone, and is able to present his selling talk to full advantage.

Undoubtedly those dear, dead days have passed when the giving of a so-called demonstration was nothing more nor less than taking a man out on a joy ride and getting him "stewed" or "pickled," in order that he might be reduced to that state of alcoholic compliance whereby he would sign an order in such scrawl as his condition could command at the time. The fake salesman who used a car all day for the benefit of himself and friends under the guise of giving demonstrations, also is pretty well weeded out. But the active salesman of today is quite as ready to give a demonstration as at any time in the past, and his "demonstrator" may be seen in the front of office buildings, doctors' residences, country houses, manufacturing concerns or anywhere else where there is a prospect of business.

#### Standardizing Body Designs.

Despite the obvious advantages of reducing body design to a standard basis, the question somehow has not been given the attention it so well deserves. Automobile manufacturers continue to produce chassis dimensioned according to their own ideas, yet with an approximate uniformity that renders the lack of conformation to standards all the more remarkable. Not only do individual body builders and agents feel the effects of this, but the makers of tops, wind shields and other body attachments are made to suffer the consequences. In the last analysis, of course, it is the individual who rides in the car that pays for the extravagances of such needless lack of agreement among common specifications.

But whatever inconvenience results in the case of ordinary stock product the diffi-

culty is most pronounced in the case of the taximeter cab. With such vehicles multiplying to an almost bewildering extent and the business prospering beyond expectation, it is a remarkable fact that absolutely nothing has been done toward standardizing the cab body.

How wide and equally needless the existing discrepancies in motor cab practice really are was demonstrated recently to an automobile builder who had undertaken to build a new cab. After approaching a number of body builders and finding them reticent to the point of secretiveness, he was forced to fall back on the body builders' own methods of obtaining information concerning the supposed standard measurements. With an assistant, he would hire a taxicab and ride about in it until he had had opportunity to obtain its full interior specifications; then he would leave the vehicle and hail one of another make. Ultimately he reached this conclusion: That instead of the established standards which he had supposed existed, no two products were the same even in respect to such features as the seat, door and sash dimensions. And he found astounding and needless discrepancies between bodies owned by the same operating company and mounted on chassis of the same make.

Public service requirements are absolutely fixed and understandable, and there is no conceivable reason why they should not be formulated in the design of a suitable standard body. The cab operators would benefit greatly thereby and so, though indirectly, would the cab patrons.

As for the less definite requirements of the privately owned car, the advantages of adopting body standards are equally obvious. The industry has produced a limited number of distinct and well defined types of car, each serving a distinct purpose. Certain requirements of each are absolutely fixed by custom and service requirements. The sooner such requirements are expressed in standard specifications and universally adopted the better for the industry and the better for the public which it serves.

#### Portable Power Plant Possibilities.

It is easy enough to enthuse over the possibilities of commercial vehicle development along lines which are already perfectly evident and well defined. But it would seem that in the too general tendency to regard the motor vehicle merely

as a substitute for the horse there is danger of overlooking some of its most useful and profitable opportunities. The motor vehicle merely as a vehicle is one thing. But the small gasoline or electric motor, as developed for automobile use, when applied to the service of portable machinery and also used when occasion requires, for propulsive purposes, is an entirely different conception. And it is a very important one.

Already a beginning has been made in the introduction of automobile fire apparatus; not only in producing vehicles to transport men and appliances to the scene of action, but in perfecting chemical and combination wagons and gasoline pumping engines to replace the cumbersome steamers. Perhaps a more familiar illustration in point is the agricultural motor, which, somewhat on the order of the classical "mechanical housemaid," some day is going to help the farmer with all his chores—even, perhaps, to milking his cattle night and morning.

There are almost unlimited ways in which the power used to propel the special vehicle also may be applied economically in operating it. For instance, there is the vacuum cleaning outfit, which, though commonly operated by gas engine power, still is horse drawn, save in a few isolated instances. There, too, is the portable bilge pump; outfits of the sort being used by electric light, telephone and other service companies for pumping out flooded conduits and sewers. Motor propelled street sweepers are being tried experimentally and their permanent adoption awaits only the time when they shall be brought to a state of proper efficiency. To mention only a few of the many other possibilities in the same line, there are the portable sawmill, baling press and corn mill, outside the particular field of the agricultural motor aforementioned, which is supposed to be able to take care of threshing and harvesting machines and other light farm machinery. There are also the portable hoist, susceptible of development in various ways, including that of a substitute for the donkey engine; and even the portable stone crusher, for use in the construction of highways.

Everywhere that there is use for light and economical motors in small units the gasoline motor is coming into use. For every sort of portable machine which now is moved about by horsepower, there is the possibility of installing a gas engine

## COMING EVENTS

August 24-26, Omaha, Neb.—Omaha Motor Club's three days' endurance run.

August 26-27, Elgin, Ill.—Chicago Motor Club's road race and speed carnival.

August 27, St. Paul, Minn.—St. Paul Automobile Club's sociability tour.

August 30, Washington, D. C.—Automobile Club of Washington's hill climb.

August 31, Minneapolis, Minn.—Minnesota State Automobile Association's reliability run.

September 3, Philadelphia, Pa.—Quaker City Motor Club's sociability run to Ocean City, N. J.

September 3 and 5, New York City—Robertson-Oldfield meet at Brighton Beach. Dan J. Smith, promoter.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 3-10, Denver, Col.—Automobile show at Overland Park.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 20-22, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 30-October 4, Minneapolis, Minn.—Minneapolis "Tribune" reliability run to Aberdeen, S. D., and return.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 6-8, St. Louis, Mo.—Third National Good Roads Convention.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 20-22, Atlanta, Ga.—Atlanta Automobile Association's meet at motor-drome.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 5, Phoenix, Ariz.—Maricopa Automobile Club's Los Angeles-Phoenix road race.

November 6-15, San Antonio, Tex.—San Antonio Automobile Club's race meet.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

March 4-12, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

of the automobile type. It is high time for manufacturers who are alive to their opportunities to co-ordinate these two prospects by producing apparatus in which the motor is made to do double duty. The

construction of portable machinery already is highly specialized, to be sure, but that by no means excludes the automobile builder from invading a field for which he should consider himself particularly well equipped.

## SETS NEW TRANSCONTINENTAL MARK

**Whitman Again Breaks the New York-San Francisco Record—Clips Almost Five Days from Time.**

Fulfilling the expectations of those who had followed his journey, L. L. Whitman, who has made it his business to break transcontinental automobile records occasionally during the last eight years, again distinguished himself in his favorite way last week, when he completed his journey from New York to San Francisco in the four cylinder 30 horsepower Reo car. He reached the Golden Gate City on Thursday last, 18th inst., after covering the 3,557 miles in ten days 15 hours 12 minutes. Thereby he clipped four days 10 hours and

tain, Nevada, and Reno. In each of the large cities pilots were secured who picked out the shortest route and best roads.

It was in 1903 that Whitman made his first transcontinental effort, he being the third to have the distinction of completing the, then stupendous, undertaking in the same year. Dr. H. Nelson Jackson, in a Winton, and E. T. Fetch, driving a Packard, completed the trip from San Francisco to New York in July and August, respectively. Whitman finished on September 18th, making the journey in 73 days, as against Dr. Jackson's 63 days, and Fetch's 61. He drove a little curved dash Oldsmobile, the Olds that was distinguished by wire wheels and tiller steering gear.

The following year Whitman went out for Fetch's record, this time driving a four cylinder 10 horsepower air-cooled Franklin. He finished in New York on September 1st, in 33 days, having nearly halved

## OPPOSE "UNLICENSED" ENTRIES

**Radical Element in Los Angeles Licensed Dealers' Association is in Arms—Proposed Race Postponed.**

There's a pretty how-de-do in the ranks of the Licensed Dealers' Association of Los Angeles, Cal., following the decision of that dignified body to throw precedent to the winds and permit unlicensed cars to compete in the Phoenix desert road race in November. As a result of this action, wholesale resignations followed from the element which was opposed to the new policy and included President Lon Lee, and the entire Santa Monica race committee. The opponents of the wide open racing policy claim that it is a flagrant violation



DESOLATE SCENES ON THE TRANSCONTINENTAL REO'S RECORD RUN

59 minutes off his previous record, made in 1906 with a six cylinder, 30 horsepower Franklin car.

On the present trip Whitman alternated at the wheel with E. I. Hammond, while Percy Haycock, of New York; John Griffith, of Lansing, Mich., and Dave Fassett, of Grand Rapids, Mich., the mechanics, changed about at the various relay points, Fassett having made the double cross-continent world's record trip with Percy F. Megargel in a two cylinder Reo "20" in the fall and winter of 1905-6, which record is unchallenged and unbeaten to the present time.

Whitman left New York at 12:01 a. m., Monday, August 8th, via Albany, Utica, Geneva, Buffalo, Erie, Cleveland, Bryan, South Bend, Aurora, Cedar Rapids, Council Bluffs, North Platte, Cheyenne, Ogden and Sacramento. Heavy rains and muddy roads seriously interfered with his advance between South Bend and Cedar Rapids. After leaving the mixed prairie roads of Nebraska and Wyoming, in the middle of which the tall grass prevented rapid progress for many miles, new obstacles were encountered in the deep sands and primitive roads west of Ogden, via Battle Moun-

tain, Nevada, and Reno. In each of the large cities pilots were secured who picked out the shortest route and best roads. It was in 1903 that Whitman made his first transcontinental effort, he being the third to have the distinction of completing the, then stupendous, undertaking in the same year. Dr. H. Nelson Jackson, in a Winton, and E. T. Fetch, driving a Packard, completed the trip from San Francisco to New York in July and August, respectively. Whitman finished on September 18th, making the journey in 73 days, as against Dr. Jackson's 63 days, and Fetch's 61. He drove a little curved dash Oldsmobile, the Olds that was distinguished by wire wheels and tiller steering gear.

### Kansas Farmers Enjoy Motor Racing.

That devotees of automobile racing are not confined to the cities was strongly illustrated at the race meet at Great Ben, Kan., on the 13th inst., when 2,000 Kansas farmers and heir families enjoyed the delirium of speed which was served up on the half mile track. There were over 400 cars on the ground. Charles Fravel in a Jackson won the feature race, a 10 miles free-for-all, after an exciting struggle with Shoemaker, Sellers, for eight miles. In the eighth mile the latter threw a tire and skidded off the track. Time, 15:17½. In the five miles race for cars under \$1,500, a serious accident occurred. A Reo driven by George Spencer threw a tire and turned turtle, pinning Spencer beneath it and crushing him badly. The event was won by a Buick in 7:16½. The same car also captured the five miles race for cars costing \$1,000 and under in 6:14. A Ford was second.

of the by-laws of the association, and considerable ill feeling has been engendered, for perhaps nowhere in the country has the line of demarcation between the licensed and unlicensed dealers been more rigidly drawn. Louis H. Schwaebe has been elected president to succeed Lee, indicating that the radical element of the association is not disposed to return to its original tenets. As a result of the hubbub the Santa Monica road race which was set for September 18th, is up in the air and probably will be shelved until Thanksgiving Day at the earliest. It is possible that it may not be held at all this year.

### Wildwood Races Called Off.

There will be no races on the Ocean Drive, Wildwood, N. J., on September 3d and 5th, the scheduled card of the North Wildwood Automobile Club being called off owing to a majority of the members being opposed to it. Following the July 4th meet considerable discussion arose over the failure of several communities who were benefited by the races to bear their share of the financial burden, and this parsimonious policy largely was responsible for the action taken.



## ELGIN RACES DRAW BIG FIELDS

**Circuit Proves Fast in Practice—Mrs. Mulford as a Mechanician—Six Cylinder Entries Scarce.**

With the closing of entries last Saturday night, 20th inst., for the Chicago Motor Club's national stock chassis races at Elgin, Ill., on Friday and Saturday of this week, 26th and 27th inst., 35 nominations were received. Twenty-two of them, the full quota eligible, were for the three light car races on the first day, and the remaining 13 were cast for the "Western Vanderbilt," the Elgin National, on Saturday. The limitation of starters in Friday's events was made necessary by the topographical restrictions of the  $8\frac{1}{4}$  miles circuit. Several of the drivers will be in the lineup on both days. But one of them will be foreign built, a Benz having been entered.

For a strictly American event no more promising field could be asked for, for with one or two exceptions it includes the very flower of the American drivers, such as Grant, Robertson, Mulford, Harroun, Matson and Dawson. Oldfield, who has kept aloof from road racing since the Briarcliff of 1908, will take another try at it in a Knox six. Six cylinder cars are very much in the minority, only three being named—the Alco, Matheson and Knox. Four 1911 models will make their debut, the Knox, Lozier, Matheson and Lexington, while the Alco is of 1909 vintage. The others are current models.

On Tuesday last the course was opened for practice, and the predictions of a fast circuit were verified. Grant was clocked for a lap in the Alco in 8:21, according to local report, and Harroun, Marmon, and Mulford, Lozier, went around in 8:23—all of which works out better than a mile a minute. Clad in regulation racing regalia, Mrs. Mulford created a sensation by acting as her husband's mechanician. According to official measurement the course is eight miles 2,499 feet in length, and has only four turns, being of wedge shaped contour. By working day and night the contractors have succeeded in whipping the circuit into excellent shape considering the extended drought which has prevailed in the section this summer.

Thousands of gallons of oil have been laid on the road, and the turns banked for high speed. The thank-you-ma'ams in the homestretch have been cut down and the soft spots filled, rolled and packed. Particular attention has been paid to the "hair-pin" turn, which is within a mile of the stands and which is the spot where the greatest action is likely to occur.

Fenced in on both sides the course will be in the nature of a stockade, the drivers being in the central enclosure and the offi-

cials and attendants in the infield. This precaution was taken to insure the crowds being kept off the road. Another innovation is the construction of concrete repair pits instead of the usual wooden structures. These pits were built to last, with the idea of using them in future. After races it is intended to preserve them by filling them in until another race is held.

Indicating a notable advance in the grooming and coaching of racing teams is the "crows nest" in the National camp, which is a feature introduced for the first time in motor racing. It is a tower 73 feet high which has been erected on the roof of one of the garages in the National headquarters and is reached by permanent ladders. From this elevation the entire course can be seen, and during the races men will be stationed there with field glasses to follow the movements of the National cars. All of the camps were pitched this week and the drivers are out in force for practice every day. Today (Thursday) a majority of them will content themselves with light workouts, and will rest up for the speed duel on the morrow.

The cars and drivers which will compete are as follows: A. W. Greiner, National; A. Livingstone, National; J. Dawson, Marmon; Ray Harroun, Marmon; Ralph Mulford, Lozier; Charles Basle, Matheson; Harry Grant, Alco; H. Saylor, Simplex; G. Schoeneck, Kisselkar; F. Stinson, Black Crow; E. F. Schiefler, Jackson; Barney Oldfield, Knox; George Robertson, Simplex; W. H. Pearce, Falcar; J. F. Gelnow, Falcar; R. Ireland, Midland; R. Drach, Lexington; D. Buck, Marmon; J. W. Fritz, Cino; A. Schillo, Overland; H. Endicott, Kisselkar; Joseph Matson, Corbin; A. Monsen, Marion; Frank Kulick, Ford; J. Hatch, Ford; W. Endicott, Cole; Chester Cheney, Staver; G. Monkmeier, Staver; E. A. Hearne, Benz, and A. W. Miller, Warren-Detroit.

### Robertson and De Palma Matched.

Another attempt to decide the question of superiority between George Robertson and Ralph DePalma will be made at Narbeth, Pa., on September 24th, when these two stars will meet again in a series of matches. The Norristown Automobile Club, which is promoting the meet, has secured the two past masters of motor racing as headliners for its card, and has hung up the surprisingly large—for the locality—sum of \$2,000, which will be split \$1,500 and \$500. The match will be five miles heats, best two out of three.

### Ball Takes Cheyenne Road Record.

Maintaining the remarkable average of 67.4 miles an hour, including one stop for tires, Harry Ball, driving a 50 horsepower Apperson, won the 200 miles road race of the Cheyenne (Wyo.) Motor Club on Tuesday, 23d inst., in 2:58:28. He was the only one of a field of six to finish.

## MIDDLE GEORGIA HOLDS A MEET

**Residents of the State Put Up Warm Competition at Hawkinsville—Pitts Wins Free-for-All.**

Drawn from surrounding towns in swarms, people poured into the little town of Hawkinsville, Ga., on Monday, 15th inst., to witness the automobile races given by the newly organized Middle Georgia Automobile Association, whose successful inaugural meet at Jackson recently encouraged it to repeat the offense. Never before in its history has Hawkinsville seen such activity, and the sharp bark of the open exhausts will live long in the memories of the natives. Recruited from local and nearby sources, the drivers put up some exciting samples of racing. The free-for-all was the feature event and was won by J. H. Pitts, National, who beat out a six cylinder Olds. All of the races were at one-half mile. The summaries:

Cars costing \$700 and under—Won by F. M. Etheridge, Maxwell; second, W. W. Taylor, Brush. Time, 1:14 $\frac{3}{4}$ .

Cars costing \$701-\$1,200—Won by M. Thompson, Maxwell; second, W. H. Maltert, Buick. Time, 1:01.

Cars costing \$1,651-\$2,250—Won by J. T. Coleman, Buick; second, D. B. Ware, Buick; third, C. W. Brantly, White. Time, 0:54 $\frac{3}{4}$ .

Free-for-all—Won by J. H. Pitts, National; second, H. J. Lamar, Oldsmobile; third, H. K. Burns, National. Time, 0:45.

### Chicago Clubs to Clash Again.

The last leaf of Chicago's motor calendar for 1910 will be torn off on October 6th-7th, when the Chicago Automobile Club and the Chicago Athletic Association teams will clash in their second interclub reliability match of the season for the L. E. Myers trophy. The trophy will be a silver cup instead of a shield or plaque, and will become the permanent property of the team which wins it three times. The deed of gift provides that this year the start and finish shall be at the Automobile Club, instead of starting at one organization's headquarters, and finishing at that of the other as in the past. Next year the athletic association will have charge of the event. Waukesha, Wis., will be the outward terminus of the run, and the first day's route will be by way of Elgin, lake Geneva and Oconomowoc. The return trip will be largely over the same leg with some deviation and the round trip will total 300 miles. In order to be independent of the doubtful accommodations which small towns offer, it is planned to load a motor truck with good things and send it ahead of the party to a prearranged spot where a real old-fashioned picnic will be held.

**GRIND 1,253 MILES IN 24 HOURS**

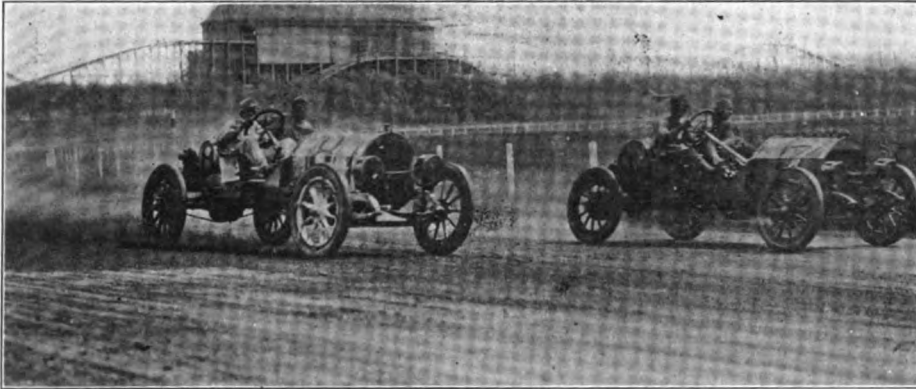
**Patschke and Poole in a Stearns Make a Harvest of Records at Brighton Beach —Several Smashes.**

At 8:30 o'clock Saturday night, 20th inst., the American 24 hours track record, which has been making its headquarters with the Lozier Motor Co., at the northwest corner of Broadway and 56th street, New York

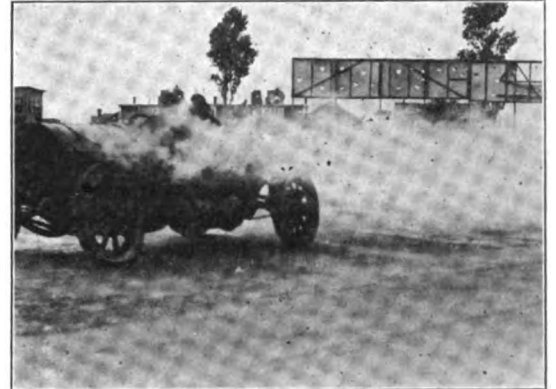
one of the most brilliant and spectacular races ever seen at the seaside track, also annexed the 1,000 miles mark and 14 of the hour records. It was the greatest record harvest in the history of 24 hour contests. By a 'strange coincidence, Patschke also was a member of the record breaking Lozier team last fall, while Poole was at the wheel of the last Brighton 24 hour winner.

Neil Whalen and Charles Basle, who guided a Matheson six, and who were sec-

at the first of the season's day and night grinds last May, again proved unfortunate, and its crew went to the hospital, one of them being badly mangled. Early Saturday morning the steering gear became deranged and the car turned turtle, and unceremoniously spilled out Wallace Owen, the driver, and Tom Williams, his mechanic. The car, which had reeled off 425 miles, was withdrawn. The next unfortunate to be eliminated was the Midland, driven by Anderson and Taylor, which went out of



MATHESON OVERHAULING MIDLAND ON THE BACK STRETCH



HOUPPT CONFLAGRATION SCENE

City, for the past ten months, moved out quite suddenly and took up a new residence in the Stearns motorium across the street. Incidentally, in the moving, although the distance between the old and new homes was short, the record underwent considerable transformation and the departing Lozier guest of 1,196 miles had grown to 1,253 miles when it arrived at the Stearns establishment.

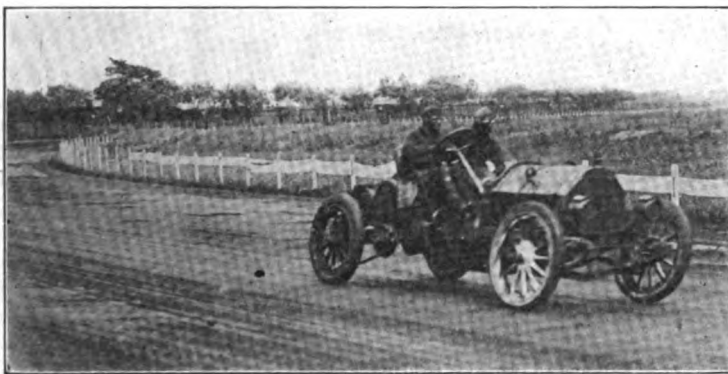
The reason why Miss Record forsook the house of Lozier was due to the ardent wooing she received from Cyrus Patschke

and choice with the fans, took second honors, rolling up 1,178 miles. Third place went to Stanley Martin and Harry Hartman, in a Houpt-Rockwell, who registered 964 miles. This outfit provided most of the action of the race by their spectacular driving and the numerous and thrilling mishaps which befell them. The only remaining one of the seven starters which was running at the finish was the Cole, driven by Bill Endicott and Louis Edmunds, and who, despite sundry fence breaking exploits, managed to keep their

the running at 655 miles, owing to a broken crank shaft.

It was the smallest field which has lined up for a Brighton 24 in many moons. While all credit is due the Stearns for its steady and consistent running, its achievement was aided considerably by the condition of the track, which was faster than ever before, due to the cementing of the turns. The attendance was considerably below the average, about 9,000 people witnessing the start, while less than 5,000 saw the finish.

Following its usual custom of persuading



WINNING STEARNS ON ITS RECORD TOUR



MATHESON SIX THAT FINISHED SECOND

and Al Poole in a 30-60 horsepower Stearns car at the second 24 hours race of the season at Brighton Beach track, on the 19th and 20th, when these two veteran campaigners, who alternated at the wheel of a privately owned Stearns which has been through several previous twice-around-the-clock grinds, bettered the Lozier figures by 57 miles. Not satisfied with capturing the 24 hours mark, the Stearns team, who drove

scoreboard in operation for 905 miles, and developed a creditable performance.

Of the three cars that fell by the wayside, the first to hoist the white flag was the Allen-Kingston, which was manned by Harry Cobe and Noel Trekas. It retired in the fifth hour with 232 miles to its credit, being eliminated by a broken crank shaft. The ill-fated Marion, which killed one of its crew in a fence butting rampage

some prominent person to act as starter, the Motor Racing Association secured William Loeb, Jr., collector of the port, to do the honors. Although there were nine entrants, two of the most prominent ones, De Palma in the Fiat and Juhasz in the S. P. O., both of whom were expected to be big factors in the contest, did not start and the announcement brought forth loud murmurs of disapproval from the crowd.

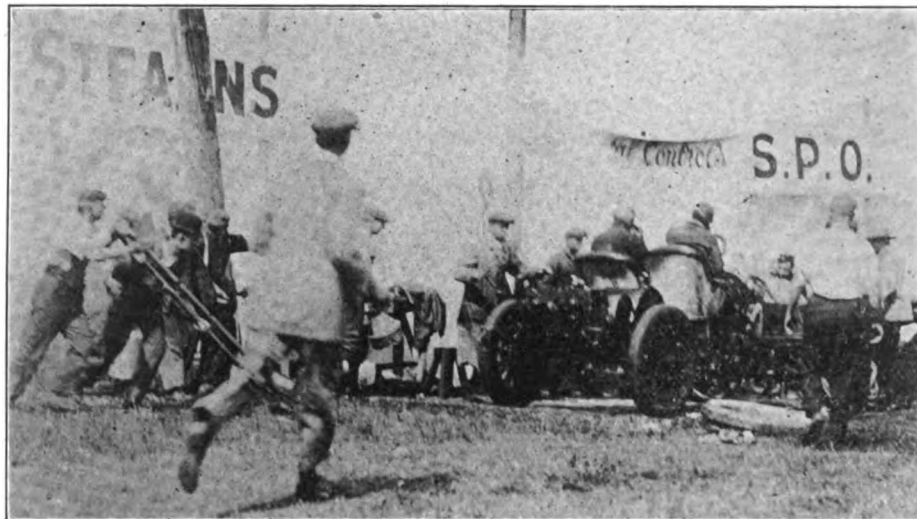
The reason assigned for their withdrawal was that the cars could not be made ready in time. Previous to the start the contestants were sent around the track a few times; singly, to give the spectators a chance to pick their favorites. A few minutes before half past eight the cars were called to the line and the drivers received the usual instructions. At 8:30 Starter Loeb's pistol spoke and the field was off in a cloud of smoke. That is, all save one, Stanley Martin in the big Houpt-Rockwell, who suffered the ignominy of being left at the post. The big Bristol machine surged and staggered, but finally was brought under control and started after the others, who by this time were well on their way.

Patschke in the Stearns took the lead immediately, with Whalen in the Matheson trailing close, the others being strung out in the rear. The first mile, contrary to the usual order, was slow, despite the fact that generous practice should have made the drivers well acquainted with the turns. After a few miles of trying out, with Patschke still leading the procession, the pace grew faster and soon all were tearing along in true 24 hour fashion.

One of the most spectacular sights of the contest occurred soon after the start when the Houpt-Rockwell suddenly became enveloped in flame and flew around the track like a chariot of fire. Fanned by the wind, the flames blazed fiercely and appeared to envelop the crew. Martin, who was driving, kept on while his me-

The first hour was notable for the hot pace which Patschke set, with the others struggling to keep up. They were unable to hang on, however, and the Stearns continued to gain and had lapped the field at 20 miles. When the first 60 minutes were

leading, which attests to its remarkably steady running. Basle's reign as the pilot did not last long, however, for in the 104th mile the Matheson blew a tire on the clubhouse turn, swerved and then crashed through the fence, the first to perform this



MAKING READY TO REPLACE STEARNS TIRES

up, 57 miles were registered on the Stearns score board, a new record for the hour, and one mile better than the previous mark which was made by the Fiat. The Matheson was second with 52 miles, Endicott in the Cole came next with 49, and the others followed in this order: Anderson, Midland, 48; Trekas, Allen-Kingston, 47; Owen,

stock thrill. It was repeated many times during the contest. When inventory of the damage was taken it was found that a front wheel was broken and the steering gear deranged. The crew escaped unscathed. A new wheel was brought and the car driven to the paddock, where it remained for half an hour while repairs were being made. The mishap allowed the Stearns to regain the leadership, and at the end of the second hour, it had scored 107 miles. Despite their accident, Basle and the Matheson were second with 104 miles, and Endicott, Cole, was third with 99 circuits. The others were strung out and having a little scrap of their own for position.

Patschke eased up a bit in the third hour, but he still led with 157 miles. Its long absence from the track cost the Matheson second place, and it fell back to the tail end of the line. Endicott in the Cole succeeded the Matheson at second with 144 miles, and Anderson in the Midland was a close third, one mile behind. The Houpt was a most frequent visitor to the paddock on account of tires, and was in fifth place. Flames shot out from the hood and underpan at frequent intervals, giving the impression that a veritable hellfire was raging within. The big Houpt was the fastest car on the track, and easily passed everything in the stretches but took the turns too fast and lost its gains through having to be shut off too soon.

Shortly after midnight the Midland, which had been playing tail to the kite, developed engine trouble and went to the paddock for a three hour rest. The spectators were treated to another thrill about 1:00 o'clock, when a pool of gasolene in



A BUSY MOMENT AT THE MATHESON CAMP

chanic tried to extinguish the flames, and the crowd watched with bated breath. Suddenly the flames died down and the car kept on. But soon the fire broke out again and efforts to extinguish it without stopping the car proving futile, Martin had to go to the paddock. A leaking gas line appeared to be the cause of the trouble and it evidently was not entirely remedied, for the blaze broke out afresh at frequent intervals thereafter.

Marion, 46, and Martin, Houpt-Rockwell, 45, bringing up the rear.

Still maintaining his fast pace, Patschke kept the Stearns safely in front until the 89th mile in the second hour, when the strain began to tell on the tires and he was forced to go to the camp for changes. This allowed Basle in the Matheson to take the leadership. He completed the century in 1:51:15½. It was the only time during the entire race that the Stearns was not

front of the Houpt-Rockwell camp became ignited in some mysterious manner and spread to the oil soaked clothing of Homer Judd, a mechanic. Judd was a pillar of flame in an instant, and attendants rolled him on the ground and threw sand on him. He was severely burned and after receiving medical attention was removed to his home.

At 12:30 in the morning, the end of the fourth hour, the Stearns had covered 211 miles, leading Endicott in the Cole by 17 miles. Trekas in the Allen-Kingston trailed one mile behind Endicott. The record was 219 miles. By 2:00 o'clock the crowd in the stands was very small, the chill morning air driving out most of those who were not provided with heavy coats and wraps. In the eighth hour the Allen-Kingston gave up the ghost with a broken crankshaft, after turning 232 miles. Beyond trips to the camps for tires or adjustments, and some speed duels, nothing startling occurred to enliven the early morning hours, and the grind went on in monotonous fashion.

Just before 6:00 o'clock in the morning the worst smash of the race occurred when the Marion, coming into the homestretch, dropped the rear end of its steering rod. The car went through the inner fence and into the infield, where it turned over. Owen, who had just relieved Basle at the wheel and was swinging the turns in a sleep dispelling fashion, and Williams his mechanic were thrown clear. Owen was badly cut up, while Williams was well shaken up.

After receiving temporary attention at the field hospital they were taken to the Coney Island hospital, where they are on the road to recovery.

In the 11th hour the Stearns, which had been sweeping along steadily, again got under the record by five miles, its total being 575. At the end of the 12th hour it was two miles ahead of the record, with 626 miles to its credit. It continued this shattering of hour records for the remainder of the race.

About 11:00 o'clock Saturday morning Endicott in the Cole had his first try at fence breaking and lost an hour for repairs to the car. During his absence Martin in the Houpt took advantage of the fact to burn things up and try to close the gap between them, but the Cole had too great a lead and retained its grip on third.

Endicott sailed along merrily for a while after he came back, until trouble again sent him to the paddock and Martin returned to the attack. Tearing off miles in better than a minute he steadily wore down the lead of the Cole and finally ousted it from third position, which it never regained. The Midland, which had been off and on at intervals during the day, and steadily was falling behind, was taken out of the race around 4:00 o'clock, having piled up 655 miles. A broken crank shaft was the ultimate cause of its downfall. It was the last of the field to drop out.

During the afternoon the order was Stearns, Matheson, Houpt-Rockwell and Cole. In the 20th hour the Stearns made

a double killing, for in addition to the hour record it also bagged the 1,000 miles honor, reaching the four figures division in 19 hours 6 minutes and 48 $\frac{3}{4}$  seconds. This was a big dent in the old mark of 20:09:45.

The afternoon attendance was small and was largely affected by the aviation meet at Sheepshead near by. The much battered fence was assaulted again about 6:00 o'clock in the afternoon, when the Houpt-Rockwell broke a steering knuckle and dove through the frail barrier, which gave way like a row of toothpicks. Martin, who was driving, was unhurt, but the car enjoyed nearly an hour's vacation while the doctors were working over it. Like Endicott in the Cole, Martin and the Houpt "came back" and cut loose in the last two hours to make up lost distance, and while he steadily drew away from Endicott he was destined to remain in third place to the end. At the end of the 23d hour the Stearns had completed exactly 1,200 miles, and was four miles ahead of the old 24 hour figure. Poole, who drove at the finish, had several spirited brushes with Martin in the Houpt, and reeled off 53 miles in the last hour. As the checkered flag fell at the completion of the last lap, bedlam broke loose and horns, sirens and bugles saluted the creator of the new record. Excepting for tire stops, the Stearns had no trouble, and gave an exhibition of consistent running such as seldom has been seen on a small track. It averaged over 52 miles an hour during the entire race. The score by hours is given in the table:

#### SUMMARY OF THE 24 HOURS RACE AT BRIGHTON BEACH

No.	Drivers and Cars.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Patschke-Poole, Stearns.....	57	107	157	211	262	310	361	414	467	520	575	626	679	733	785	838	889	941	993	1048	1101	1148	1200	1253
2	Whalen-C. Basle, Matheson.....	52	104	133	183	236	284	333	387	439	487	540	590	637	688	737	781	830	878	924	979	1028	1078	1124	1178
3	Martin-Hartman, Houpt.....	45	92	141	188	236	288	294	294	295	347	383	436	486	535	583	626	669	719	768	817	870	917	919	964
4	Endicott-Edmunds, Cole.....	49	99	144	194	243	271	286	336	389	439	491	540	587	638	670	670	694	694	717	743	784	821	863	905
5	Anderson-Taylor, Midland.....	48	97	143	164	164	164	205	255	291	323	372	415	443	455	501	541	589	635	655	655	*			
6	Owen-M. H. Basle, Marion.....	46	94	138	184	225	273	323	370	416	425	425	425	425	425	†									
7	Trekas-Cobe, Allen-Kingston....	47	93	142	193	232	232	232	232	†															

The figures for the first, eleventh and succeeding hours are intermediate records.

\* Out. Broken crank shaft. † Out. Wrecked. ‡ Out. Broken crank shaft.

#### Oldfield-Robertson Meet at Brighton.

Although it was noised abroad that "Bill" Pickens was anxious to conduct an Oldfield meet at Brighton Beach track, New York, on September 3d and 5th, such proves to be slightly erroneous, for an announcement of the meet which was issued this week explicitly states that one Dan J. Smith, secretary to somebody who is something to somebody who owns the track, will have exclusive voice and responsibility in promoting the meet. However, Pickens is manager of Oldfield, who will appear at the meet, so the resourceful William may play the role of silent partner. At all events he seems to be on a safer side of the gate than was the case a few years ago when he and one Joseph M. Gates, a theatrical personage doing business as the "United States Motor Racing Association" gave a 24 hours race at

Brighton. Oldfield and Robertson are cast for the leading roles in the coming meet. The program, which is identical for both days, is as follows: Mile time trials; 10 miles, 300 cubic inches and under; 10 miles, 600 cubic inches and under; 5 miles, free-for-all; one hour, 600 cubic inches and under.

#### Foreign Makers Must Prove Stock Cars.

To eliminate the unjust conditions which permitted the participation of foreign machines in sanctioned contests in this country without being required to file a certificate of description, the technical committee of the A. A. A. Contest Board has ruled that all manufacturers of foreign cars must file such description to meet the requirements of the Stock Car rules. The statement must be signed by the president or managing director of the said company and

must be sworn to before the U. S. Consul of the district. Recently cases have arisen where foreign built machines which won races were disqualified for non-registration.

#### Riverhead Road Race in Cold Storage.

Although preparations for the event never went beyond the naming of a tentative date, the Motor Contest Association has announced that inasmuch as the Vanderbilt and Grand Prize races will be sufficient to satisfy Long Islanders craving for speed this year he will put the Riverhead road race in cold storage. However, it has been suggested that the real reason for the abandonment is the failure of the Riverhead residents to accept the association's proposition to tax all spectators a nominal sum to defray the expenses. Last year the association went broke or very near to it in staging the event.

## CLOSE FIGURES IN TRUCK AWARDS

**Atlantic City Contest Results—Eight-Tenths of a Cent Determines Winner in Mammoth Class.**

Interest in the award of prizes in the commercial vehicle test between Philadelphia and Atlantic City, August 12th and 13th, was confined mainly to the Mammoth Class, for trucks carrying in excess of four tons, when two of the contestants were separated by only eight-tenths of a cent cost. The judges finally decided in favor of the Gaggenau over the Mack, entered by Walter Wilson. The struggle was carried out to five decimal places, the winner's expense total being \$4.535 to \$4.54344 for the other. Each carried the same weight of load as well as going the same distance.

The Mack entrant was anxious to make the run over again, believing that he could win thereby. A public hearing was held in the matter. The differences hinged on two points. One was that the Mack (Wilson) truck was pulled out of a ditch by an electric. There was nothing to prohibit such aid, but Chairman Butler, of the American Automobile Association contest board, favored a penalty being imposed. The other crucial point was as to the amount of oil used by the Gaggenau. The ruling had been that every car should present itself full of oil and gasoline, nothing being said, however, about the drivers being loaded. The Gaggenau entrant declared that it was impossible for that truck to work well with the oil reservoir filled, but that the oil was up to a certain mark. He also stated that that point had been rendered clear to the referee at the outset and an offer made to submit to measurement, which was not accepted.

The technical committee agreed not to object if the contest committee did not offer opposition. The contest committee finally determined that one point should offset the other. The issue then reverted to the records, by which the Gaggenau led by eight-tenths of a cent margin.

The manufacturers' division was split into three classes, Class A being won by the Franklin, which had a load of 2000 pounds and an empty weight of 2558 pounds. The cost per ton mile was 2.531 cents. In Class B, the perfect score Garford, which was the only entrant, won. Its load was 4000 pounds, with an empty weight of 5860, the cost being 1.99 cents. The perfect score Frayer-Miller, with a load of 7000 pounds and empty weight of 5600, took Class C, with a cost average of 0.765 cents.

Every car used oil and gasoline of the same quality. These two together, or in the case of the electrics the kilowatts consumed, gave the most important item: cost. No separate account was kept of tire cost,

yet that roughly entered into the calculations, since there was no exemption from time penalty following tire troubles. The cost of the trip and the per ton miles cost, however, are two different things.

## Manufacturers' Division.

Class A, 1½ tons capacity or less, 15 miles an hour—Won by Franklin, W. R. Coughty, driver; Franklin Motor Car Co. entrant. Per ton mile cost, 2.531 cents.

Class B, between 3001 and 5990 pounds, 12 miles an hour—Won by Garford, W. O. Ritter, driver; Garford Motor Truck Works, entrant. Per ton mile cost, 1.99 cents.

Class C, between three and four tons, 10 miles an hour—Won by Frayer-Miller, Harry Webber, driver; Kelly Motor Truck Co., Philadelphia, entrant. Per ton mile cost, .765 cents.

## Private Owners' Division.

Class A, 1½ tons capacity or less, 15 miles an hour—Won by Autocar, R. Crossing, driver; John Wanamaker, entrant. Per ton mile cost, .898 cents.

Class B, 3001 to 5999 pounds, 12 miles an hour—Won by Little Giant; M. Plush, driver; Suburban Auto Express Co., entrant. Per ton mile cost, 1.642 cents.

Class C, between three and four tons, 10 miles an hour—Won by Frayer-Miller; Harry Miller, Driver; Kelly Motor Truck Co., Philadelphia, entrant. Per ton mile cost, .705 cents.

## Electric Vehicle Division.

Class A, 1½ tons capacity or less, 12 miles an hour—Won by General Vehicle; F. P. Ayres, driver; General Electric, entrant. Per ton mile cost, 1.013 cents.

Class B, 3001 to 5999 pounds, 10 miles an hour—Won by General Vehicle; H. Wright, driver; Bergdoll Brewing Co., entrant. Per ton mile cost, .706 cents.

Class C, between three and four tons, 10 miles an hour—Won by Commercial Truck; Karl Bey, driver; American Brewing Co., entrant. Per ton mile cost, .792 cents.

## Mammoth Division.

Exceeding four tons, 8 miles an hour—Won by Gaggenau; P. W. Gaylor, driver; Benz Import Co., entrant. Per ton mile cost, .736 cents.

## Hearing on the Glidden Injunction.

Another chapter in the legal dispute over possession of the Glidden trophy was written last week when Justice Harrington Putnam, sitting in the second district of the Supreme Court of New York, in Brooklyn, gave a preliminary hearing on the application of H. O. Smith, of the Premier Motor Mfg. Co., for a continuation of the injunction obtained to prevent the American Automobile Association delivering to George W. Dunham or the Chalmers Motor Co., the Glidden trophy. Justice Putnam reserved decision.

## LONG ISLAND WINNERS ANNOUNCED

**Brooklyn Dealers Run Awards Include a Bouquet for a Speeder—His "Consistent Running" Commended.**

After a lot of powerful smart figuring that may be supposed to have consumed most of the waking and sleeping hours of A. R. Pardington, referee, for ten days, the complete results of the Brooklyn Motor Vehicle Dealers' reliability run on Long Island, August 9th and 10th, were announced last Saturday. No protests have been filed and the announcement in general is not calculated to prove sensational, but one bouquet, at least, tossed by the referee, amuses the insiders. The car driven by the "speedy youngster," who came in for unofficial criticism at the time, is commended for "consistent running," along with others that really tried to respect the rules. Over many short stretches the youngster went at 40 miles an hour or more repeatedly, coming to full stops to even up his schedule. He was not only seen doing it, but boastfully volunteered the intelligence indiscriminately to the other contestants whom he covered with dust. The awards:

Division A, cars selling for \$800 or less—Won by D. M. Bellman, Hupmobile.

Division 2A, cars selling for \$801 to \$1,200—Won by W. H. A. Bruns, Hudson.

Division 3A, cars selling for \$1,201 to \$1,600—First prize won by W. J. Houldcroft, Crawford; second prize by E. T. Bloxem, Maxwell.

Divisions 4A, 5A, 6A, 7A, touring cars selling for \$1,601 or more—Won by G. M. Wagner, Columbia.

Divisions 4A, 5A, 6A, 7A, runabouts selling for \$1,601 or more—Won by I. C. Kirkham, Columbia.

Touring division, most consistent running car—First prize won by John McCormick, Ford; second prize by H. G. Woodworth, Cadillac.

## World Tour Planned for Oldfield.

According to the resourceful William H. Pickens, he and his Barney Oldfield are to make a tour of the world this fall and incidentally gather in some foreign cash in return for exhibitions. Pickens figures that millions of foreigners who have heard of Oldfield are just dying to see him, and has laid out an itinerary which calls for his first performance at Honolulu, H. I., the first week in December. Where there are no tracks exhibitions will be given on the roads, for, according to Bill, the natives of the Far East are not particular about the course and will "come across" generously to get a glimpse of the Peerless One. At least, that is the gist of an announcement circulated at Worcester last week.



## GET MORE TOURING THAN HISTORY

**Munsey "Historic" Tour Develops Many Adventures—Perfect Score Division Large After Eight Days.**

Up to Wednesday night, 24th inst., the Munsey Historic Tour had covered all but about 374 of the 1,550 miles, more or less, of its run. Inasmuch as the run around Lake Champlain was cut out, to say nothing

the following: Warren-Detroit No. 10, 4 points; Great Western No. 18, 2 points; Staver-Chicago No. 23, 242 points; Crawford No. 27, 867 points; Inter-State No. 29, 111 points; Ford No. 30, 8 points, and Moon No. 32, 2 points.

On Thursday morning, 18th inst., the retinue left New London, to which point the penalizations were last week noted, for Boston via Narragansett Pier and Providence. At the Pier a stop of an hour was made so that Constable Cross, "Doc" Ar-

possible they grabbed the next driver, who was Lincoln. He asked for a receipt for his fine money, but the judge told him his liberty was receipt enough.

From Boston the way led to Portland. During the fourth day there were two penalizations. Emery Kudsen, Staver-Chicago, was awarded 169 points for a broken spring and work on a rear differential, which caused tardiness, while I. W. Dill and G. H. Covert, Inter-State, got 62 points for labor on transmission gear. Portsmouth,



ON THE HIGHWAY NEAR PORTSMOUTH, N. H.



WHEN THE MUNSEYITES REACHED PORTLAND

ing of the changes that may follow, the journey is likely to prove about as elastic as that conducted under the same newspaper auspices last fall. Somehow the historic side of the trip seems to have gone into the discard. As a tour, however, the affair is maintaining a highly gratifying percentage of clean scores. There were 17 of them at last accounts as against only seven penalizations.

nold and the roulette wheel, operated, not by a motor, but bellows, could be pointed out. The noon check was Providence, where a delegation of Boston dealers and motorists joined the party for escort duty. During the day, the third of the tour, there were three penalizations. Clarence LaMar, Great Western, getting two points for repairing an ignition terminal; Fairman, Kline, one point for cleaning sand out of

where the ale comes from, engrossed the party during the noon stop.

At Gloucester a committee of motorists met the "excursionists" and overloaded their cars with booklets advertising the city, including the superior boneless codfish to be caught off Cape Ann. So much entertainment extended near by caused one of the Newburyport papers to observe that the Munseyites went through their city



GENERAL VIEWS AT ONE OF THE STOPPING PLACES ON THE MUNSEY TOUR

The perfect score cars, as they are designated on the tour, are the following: Columbia, Washington No. 5, Washington No. 6, Ford No. 8, Corbin No. 11, Brush No. 13, Brush No. 14, Regal No. 15, Pierce-Racine No. 16, Enger No. 17, Krit No. -9, Cino No. 22, Stoddard-Dayton No. 24, Maxwell No. 25 and Kline No. 31.

The penalized division is composed of

the gear lever quadrant, and Ross Henwood, Ohio, 34 points, three of which were for putting on a muffler nut and the others for gasoline pipe repairs.

Harry Lincoln of the party was late in reaching the Modern Athens, as he was fined \$15 for speeding in Providence. The police there had set a trap and tried to catch the pace maker, but that being im-

"without a yip except that emitted from their own horns."

The fifth day the road stretched from Portland to Bethlehem, N. H., with a luncheon stop at Fryburg, Me. During that run the Maxwell runabout was withdrawn, being disabled through stripping its gear. A. S. Hardart, Elmore, was penalized six points, three for an engine stop and three

for a broken terminal. Emery Kudsén, Staver-Chicago, received 73 points, and Roy M. Upton, Moon, one point. Sunday was spent at Bethlehem in the White Mountains.

The sixth day took the tourists from Bethlehem to Burlington, Vt., the noon stop being at Montpelier. The first large place reached was St. Johnsbury, where street souvenirs and refreshments were distributed. At Montpelier the Vermont Automobile Club and the board of trade had the fingers of the glad hand well lubricated. The Montpelier Journal requested local motorists to decorate their garages, "even if they were constables last year," and to use "paper flowers or any other re-

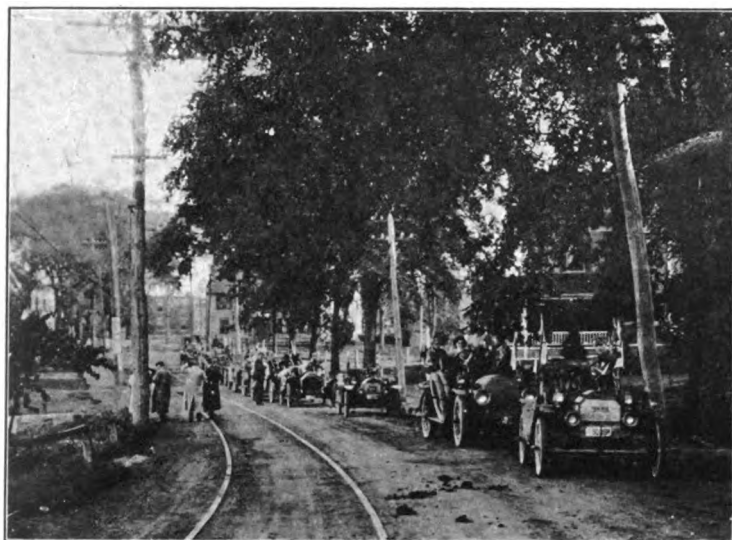
in the Crawford, which up to that time had gone unscathed, got 435 points for work on the transmission and 43 points more for tardiness at the noon control.

At Burlington, a change of route was announced. A trip around the north side of Lake Champlain had originally been arranged. But somehow the lake had been forgotten all about by the advance agents. The ferry from Chazy Point, Vt., to the New York side required six hours to transport the concourse, so Referee Ferguson divided the party in three lots and sent them by ferry direct. The first section went over the night before, the second at 5 a. m. and the third later in the morning. Saratoga was the night stop, with the

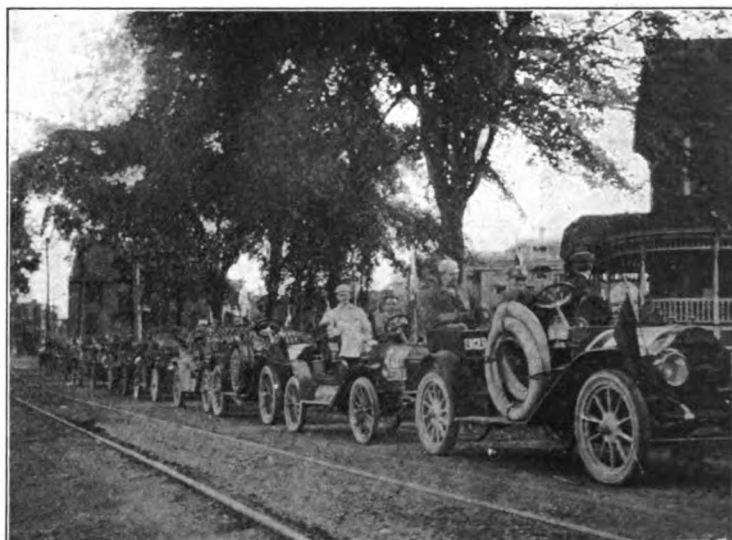
A five miles race for amateurs, a 100 miles free-for-all and record trials will be the other nobby offerings, and of course there will be the usual string of class events. On Monday an even better card has been arranged with a 200 miles free-for-all with \$1,000 to the winner as the topline. The 50 miles free-for-all with \$800 to the winner is another which should attract a good field, while class events comprise the remainder of the day's bill.

#### Motordrome Fever Reaches Galveston.

After subsiding temporarily the motordrome fever seems to have broken out again in various sections of the country, the latest city to become infected with it



READY TO CHECK IN AT WEST POINT CONTROL



MUNSEYITES WAITING IN LINE AT PROVIDENCE

spectable mode of dressing in case golden rod and sun flowers ran short for decorations." In addition to the natural or artificial flowers, a profusion of pretty girls was also requested by the press. Governor Prouty was on hand, by special arrangement with Munsey's Magazine, as an "added attraction," and besides there was a band concert. All the tourists took to their legs, parading behind the band.

The day's journey was episodic. La Mar, in the Great Western, being wrecked just outside Montpelier. He ran his car into the side of a covered bridge, on a sudden turn, to avoid hitting a carriage driven by a woman. He said she was on the wrong side of the road, but the lady set up an opposite contention. It was on this day, also, that W. S. Hardart, who won the tour last year, heard the news. His Elmore car was disqualified because its manufacturer had omitted to file with the American Automobile Association a proper manufacturer's certificate. Hardart had been allowed to start on the understanding that the Elmore company would furnish the document. The car is continuing as a non-entrant. F. H. Peabody, Ford, received eight points for a deranged strut rod joint. A. A. Miller and Walter Scott,

seventh day noon stop at Elizabethtown. The trip brought the withdrawal of the Glide, which broke a crank shaft bearing that could not be replaced. There were so many speed traps on the fine roads in the Lake George region that the pace maker exercised unusual care.

#### Two Days' Racing for Indianapolis.

Instead of a three days' meeting as originally planned, the coming speed carnival on the Indianapolis (Ind.) Motor Speedway next month will be a two days' session, with one day's intermission, the dates being September 3d and 5th, the latter being Labor Day. In announcing the program through the issuance of entry blanks last week, the management has made a departure from previous custom and will not directly solicit nominations from manufacturers, depending on the allurements of the \$8,000 in prizes which are offered to attract the entries of the big stars of the racing firmament. In the hope of making the meet of an international character, entry blanks were sent to eighteen foreign manufacturers as well as to a majority of the American makers. The stellar event on Saturday, the opening day, will be the 100 miles race for the Remy Grand Brassard.

being Galveston, Tex. At a recent smoker given by the Galveston Automobile Club a speedway project was taken up and inside of an hour over \$5,000 was subscribed toward a fund of \$15,000 for a race course. The proposed motordrome will be situated near the beach and will be a combination beach speedway and circular dirt track.

#### Marmon Cars to Race on Speedways.

In announcing their retirement from track racing the Nordyke & Marmon Co., Indianapolis, Ind., intended that it should be understood that such abstention should apply to half mile and mile dirt tracks only. It appears that an erroneous impression has arisen that all tracks were included. To correct which, it is now made plain that Marmon cars will continue their vigorous campaign on specially built motor speedways like Indianapolis, Atlanta and Los Angeles.

#### Omaha to Join Speedway Circuit.

One more city, Omaha, Neb., will join the motor speedway circuit when the new track at the old fair grounds is completed. The Omaha Speedway Co. is back of the project, and the plant represents an investment of \$20,000 on track and buildings.

**JERSEY WANTS \$7.40 FROM A. A. A.**

**Cannot See Why Tax Bill Should be Less than Last Year—Tangle in the Bookkeeping.**

Seven dollars and forty cents in tax money, which may or may not be used by the American Automobile Association, is giving an astounding amount of worry to the New Jersey state board of assessors. It seems that the three A's in common with everybody else who can in the motor realm is seeking to shake the dust of that commonwealth off its shoes and say an eternal farewell. That Jerseyites understand it is probably the last crack they will ever have at the organization seems to account for the activity in the matter of Irvine E. Maguire, secretary of the assessors.

The A. A. A., a national corporation, was chartered in New Jersey, five years ago, as a corporation. At the annual meeting held in New York City, November 20th last, action was taken to dissolve the stock holding corporation under New Jersey law and to incorporate the membership under Connecticut law. Such change would place the association on a purely membership basis, giving to each member, whether a state association, club or individual, an equal footing in its affairs. For some reason the dissolution has dragged along for eight months, until it is declared that another year's taxes are due.

A paid up bill was demanded by the gather-them-in-board at Trenton. The tablet presented was not allowed to dissolve on the principle of no pay, no cure. The point at issue is over the amount of the bill for services. The concern had an authorized capital of \$125,000, only a small part of which ever was paid in. In fact, the official return to the Jersey assessors last year showed the total of stock issued to be \$17,160. That made the tribute for lubricating purposes at the state capital \$17.60, as corporations are taxed on the amount of stock issued. This year the return showed only \$10,020 issued, on which the tax would be \$10.20.

When the secretary of state found the association wanted to change its legal residence, the room clerk immediately looked at the cashier's (or comptroller's) books and refused to give the porter word to release the baggage until the guest had cancelled its indebtedness. In this case, however, an affidavit will be demanded before clearance papers are issued, in view of the "great discrepancy" (\$7.40) that exists.

C. Thaddeus Terry, the only official of the three A's who has absolute grasp of the situation, is on a vacation and search among the cash books fails to reveal just where the differences lie. A former officer

is thought to have fallen into a clerical error in making the returns.

Horace Bonnell and Amos G. Batchelder, the two busy B's of the three A's, through misfortune rather than fault between their periods of toil are slumbering in Jersey, making it handy if the assessors wished to pounce upon them for \$7.40. Other New Jersey officers of the association are Carl Roebling, Trenton; Walter Edge, Atlantic City; Dr. J. N. Faulkner, Paterson; F. A. Croselmir and William F. Kimber, Newark; W. H. Fulper, Flemington; J. H. Hanners, Edgewater.

**Fine Point That Decided Damage Suit.**

That it makes a good deal of difference on which side a horse is struck by an automobile, if the owner expects to collect damages, has been forcibly impressed upon William Blaze, of Hardville, Neb. Blaze was driving a horse-drawn wagon, when an automobile approached from behind. As the wagon carried no lamps, the motorist could not see it until within a few yards and, after blowing his horn, struck the horse fairly on the left side. In the legal squabble following the death of the equine, the lawyer for the motorist pointed out that the horse could not have been struck on the left side, had not its driver tried to turn out in the wrong direction. The jury agreed with his view of the matter and awarded the nominal damage of \$1 to the owner of the horse.

**Says Apprenticeships Are Slavery.**

Apprenticeship systems, such as prevail in a number of automobile factories, particularly in Detroit, Mich., received a blow when Judge Tappan, in the circuit court at Port Huron, Mich., indicated that an apprenticeship contract is virtually a slavery bond and is therefore illegal. The decision was in a verdict in favor of Vassar Smith, a young man who in 1901 bound himself as an apprenticeship to the Draper Mfg. Co., absented himself from the job two years later, and subsequently was arrested for alleged breach of contract. "This contract," said the court in directing a verdict, "inaugurates a system of slavery to minors and the court therefore finds it unconstitutional." The case is represented as being without precedent in any court of record in the United States.

**Damages for Horse's Nervous Shock.**

"Nervous shock" to a horse is a new ground for damage suits against motorists, as brought forth in a suit by George W. Tapper against the Syracuse Motor Car Co., of Syracuse, N. Y. He claims that in a collision between one of the company's automobiles and his horse, the latter, while not seriously cut or bruised, sustained a nervous shock which has developed in it a number of mulish and intractable instincts, so that it now kicks and is unmanageable, reducing its \$450 value to almost nothing.

**ROOTING HARD FOR RECIPROCITY**

**Convention to Promote Changes in New Jersey Laws—Modifications Demanded—Issue Becomes Acute.**

Fully 400 motorists turned out for the Newark mass meeting last week of the New Jersey Automobile and Motor Club to discuss remedial horseless vehicle legislation in that state, and the gathering proved as lively as it was large. Clarence H. Bissell, president of the organization, was chosen chairman and set the ball rolling by a short speech in which he touched upon the retaliatory laws against New Jersey being passed by many states and the harm done to business by unwise automobile legislation.

J. B. R. Smith, state commissioner of motor vehicles, advocated an interstate convention to consider a general plan of legislation, but the idea did not meet with favor, as it was thought it would not bring speedy enough action.

A. G. Batchelder, chairman of the executive board of the American Automobile Association, declared that in traveling about the country when he was obliged to tell people that he was from New Jersey they simply throw up their hands and observe, "Well, that is the state with a Chinese wall built around it," so you can see how New Jersey is taken throughout the country.

Dr. G. Vogt said: "We want permission to go into other states without paying this registration fee, and we want it now, at once. What is the use of waiting for the next legislature to see what they intend to do? There are three parties in this state now; they are the republican party, the democratic party and the senator from Somerset. I contend that if the republican party can reach the senator from Somerset, we shall get what we want, and he will be done for." Dr. Vogt took exception to the remarks made by Commissioner Smith; said he thought that the commissioner was talking from the stand of a paid servant.

Others who spoke were J. H. Wood, president of the Associated Automobile Clubs of New Jersey; George Paddock, president of the New Jersey Trades' Automobile Association, and George Post, president of the North Jersey Automobile Club.

Former Governor Franklin Murphy wrote a letter, in which he said: "I heartily favor such changes in the laws as will give New Jersey motorists reciprocal privileges."

Meantime members of the Automobile Club of Hudson County, with headquarters in Jersey City, have passed resolutions similar to those drawn up at the Newark gathering.

## KNIGHT ENGINES IN NEW FORM

**Panhard, Minerva and Rover Producing Sleeve Valve Motors—Changes from English Daimler Type.**

Probably no modern automobile development has received a greater amount of attention than has the Knight engine. At the same time, despite the fact that a number of automobile manufacturers in England and Europe have taken out licenses to produce engines of the sliding sleeve valve type, it is not until very recently that active preparations have been made to market such products. Up to this time practically the only firm producing the engine has been the English Daimler company, which is the concern with which Charles Y. Knight, its inventor, is associated. It is therefore with considerable interest that the announcement is received that the sleeve valve engines are about to be produced in several other quarters.

Perhaps the most interesting of the new Knight engines is that produced by the Panhard-Levassor company. Although the Panhard license was taken out more than a year ago, and it has been understood that the new engine was "in the works," its regular production has only just been announced in connection with a new model. The Panhard-Knight engine is the same in most respects as the standard Knight-Daimler. The arrangement and construction of the sleeves, the driving eccentrics and silent chain operating gear connected with the crank shaft are the same. In the matter of lubrication, however, some alterations have been made.

In the Knight-Daimler engine, lubrication is effected through the medium of a series of channels arranged beneath the cranks, from which the oil is raised to the connecting rod bearings and circulated by the aid of scoops on the crank arms. The Panhard is a version of the popular constant flow system. The oil is circulated by means of a small pump on the rear end of the eccentric shaft. Leads from the pump conduct the lubricant to one side of the upper section of the crank case, from which point it is distributed to the bearings. The five-bearing crank shaft is supported entirely in the upper section of the case, the lower section forming merely a removable oil pan of the conventional style.

Tests made with this engine are said to have shown its power to range from 25 horsepower at 725 revolutions, to 41.5 horsepower, running at 3,100 revolutions. In the course of a road test, its consumption is said to have worked out at approximately 17 miles to the gallon. The four cylinders of the motor are cast separately, as in Daimler practice, and the bore and stroke are, respectively, 100 by 140 milli-

meters, or, roughly, 3 15-16 by 5 1/4 inches.

The Minerva company, in Austria, also has just produced a new version of the Knight plan in the form of a 16 horsepower unit for light car use. Besides being of lower power than other motors of its class so far produced, the performance of this particular type will be watched with interest, for the reason that it is the first Knight engine to be built with cylinders en bloc.

In England a new follower of the American inventor has sprung up in the Rover company, which is now building a 12 horsepower car equipped with this engine, the unit being of two cylinder form and having a bore and stroke of 96 by 130 millimeters, or about 3 3/4 by 5 1/8 inches. It is said of this motor that when tested out on the bench, it proved to be unusually silent, and to be free from many of the sounds which ordinarily distinguish a two cylinder poppet valve engine.

### Queer Phase of Motor Mail Delivery.

Indianapolis, Ind., is in sore straits at present in connection with its mail delivery and collection system. Some time ago the local post office installed several Overland cars for this purpose, under a contract covering a period of nine months. Now that the nine months almost have expired, the Overland company declines to furnish cars under the old agreement, and demands a contract running for at least four years, as well as providing for one more car. The post office authorities could not or would not agree to such an extension of the contract term, and invited competitive bids. To their surprise no automobile company submitted a bid, as all were frightened away by the time limit if the contract.

The Willys-Overland Co., in order not to tie up the entire mail delivery service of the city, has signified its intention to continue its cars in the service of the post office for another nine months. In the meantime it is hoped that some way will be found out of the dilemma, and that the government will accede to the request for a longer term of contract.

### Rush Schedule for a Big Shipment.

One of the largest single shipments of automobiles that ever went into the Northwest was forwarded recently over the Chicago Northwestern railway from the factory of the Overland Motor Car Co., in Toledo, Ohio, to the Minneapolis agency. The shipment consisted of 25 double decked railroad cars, each containing six motor cars, or 150 cars in all. The shipment is regarded as a record one for the reason that the train was rushed through on special schedule, in order to make up a shortage of cars for delivery. The entire journey occupied a little less than two days, which practically equals the schedule of passenger trains between the two cities over the same route.

## ELUSIVE CARBURETTER TROUBLES

**Variations from the Proper Fuel Level Cause Puzzling Difficulties—Methods of Making Necessary Adjustments.**

Happily for the average motorist who looks after his own machine, the ordinary carburetter as a rule will run for long periods with little or no attention beyond an occasional and thorough cleaning. Nevertheless, when it does go wrong there is no part of the machine that is apt to prove more troublesome. And it is worth noting that one particular ailment to which it is subject seldom is recognized, despite the fact that it may be responsible for considerable irregular running.

While some carburetters are provided with adequate means for regulating the fuel level, others are made with fixed adjustment; in either event many operators, some of them "graduates" from "schools," are not aware of the importance of maintaining the level at the proper point. Many experienced operators, it further may be observed, may be misled in respect to float level troubles by reason of the lack of adjusting means in the particular carburetter under examination.

Where method for adjustment is provided, it is a comparatively simple matter to make correction for any loss of regulation, and whenever the mixture develops otherwise inexplicable tendencies to undue weakness or strength throughout the speed range of the motor, it is well to inspect the level to see whether it has been altered as a result of wear in the regulating mechanism. For this is the real seat of not a little carburetter trouble.

Where no adjusting means is provided, the wearing of pivot points, bending of levers or abrasion of the needle valve should be looked for. In each case the remedy must be a special one, according to circumstances. It is needless to add that where parts are found to be weak, as where bending of parts results from normal use, rather than from abuse at times when the carburetter is dissected, it is necessary to replace the faulty members if one desires perfect mixtures.

### Tells of Rubber's Geography.

Of considerable interest during the present speculative wave, the little booklet entitled "The Commercial Geography of Rubber," compiled by Charles B. Whittelsey, superintendent of the Hartford Rubber Works Co., has just appeared. Chiefly intended for circulation among the trade, the little book contains a great amount of valuable information regarding the origin, nature and manufacturing processes of rubber, set down in easily comprehensible, non-technical language.



**THREE MODELS OF THE WESTCOTT**

**Closed Front for Seven Passenger Type—  
Open Front Retained for the Five  
Passenger Offering.**

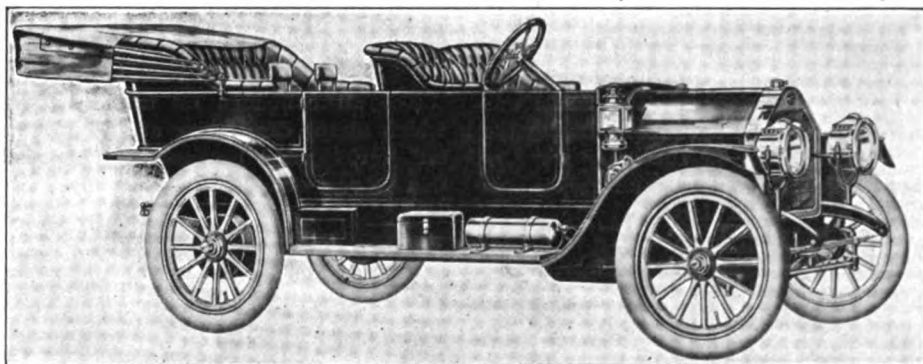
While a large number of automobile manufacturers are rising to the support of the high sided body, which, perhaps, may be most correctly described by the appellation "closed front," there are a few who go upon the wise assumption that just because the closed front is the very latest development in the body line it does not follow that all intending purchasers are certain to wish to own a vehicle of that type. Of the group of makers revealing this very commendable discretion the Westcott Motor Car Co., Indianapolis, Ind., may be mentioned. The Westcott "45-50" is one of the newer cars, and though its

and tools including jack, pump and tire repair kit.

The descriptive designation of the car

mounted on Timken roller bearings. The rear axle is of the full floating type.

Semi-elliptic suspension is employed, the



WESTCOTT 45-50 CLOSED FRONT TOURING CAR

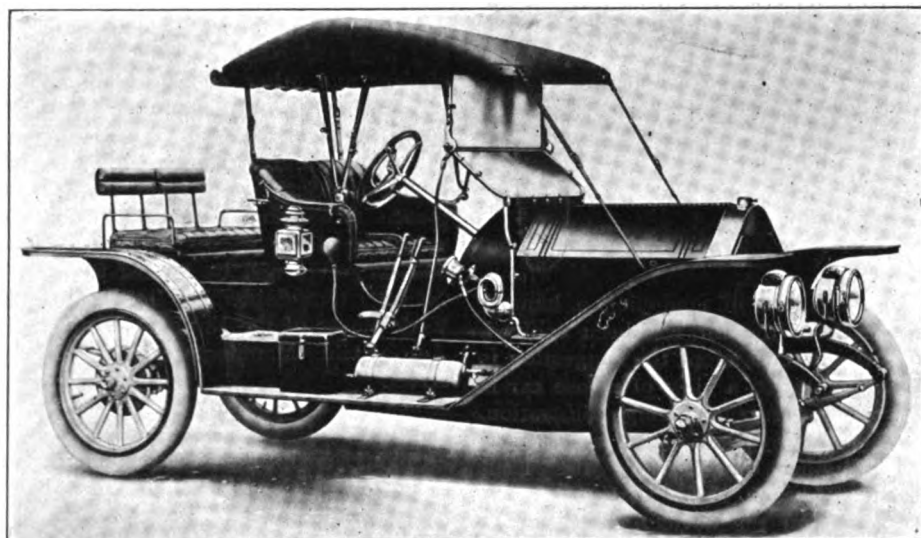
is derived from the full rating of the motor, which is of well known and approved form, having cylinders of  $4\frac{3}{4}$  by 5 inch di-

front and rear members being 40 and 56 inches in length, respectively. The service brakes are of the contracting type and operate on drums on the rear wheels. The emergency brakes are of the expanding pattern. The wheel base is 120 inches, the tires are 36 by 4 inches in size and of the "Q. D." pattern, the clearance is 11 inches, and the nominal weight 3,000 pounds.

The general arrangements of the mechanism and of the control system are standard. In connection with the seven passenger torpedo pattern, however, it is well to notice one point, namely the arrangement of the side levers. Instead of being carried outside the body, the levers are placed inside. By this means they are brought within easy reach of the operator, while the body is kept smooth outside.

#### Waverley Changes and Price Advances.

Advances in prices on September 1st are scheduled for Waverley electrics, made by the Waverley Company, of Indianapolis, Ind., and all models are to have 20 per cent. larger battery capacity, permitting from 90 to 100 miles on one charge. Provision also is to be made for the fitting of Edison batteries when desired. The four passenger



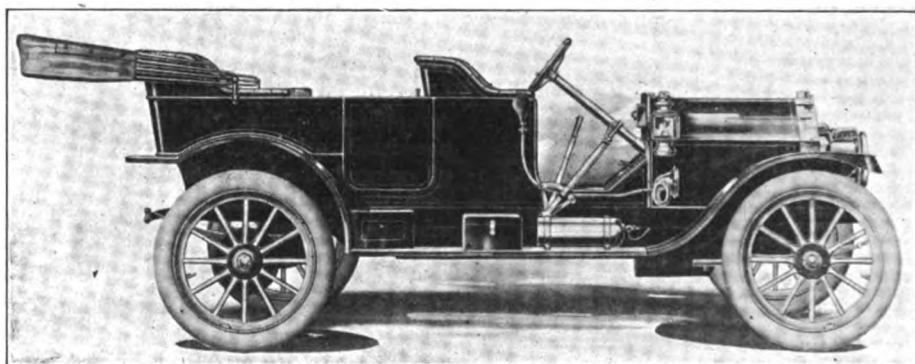
FOUR PASSENGER RUNABOUT FULLY EQUIPPED

construction by no means is so radical as to excite criticism, there are a number of points about it which are well worth considering.

As already indicated the body designs adopted offer an option in the matter of style. As the accompanying illustrations show, practically the same form of touring equipment is built in both closed and open front construction. The closed front style, however, is made to accommodate seven passengers, while the more nearly standard body is built to carry four passengers in addition to the driver. There is besides a natty four passenger runabout, with folding artillery seat in the rear, a deep concave dash, folding wind shield set well back over the dash, and top covering the forward seat.

The standard equipment for these three styles of car includes two oil dash lamps and the tail light, a pair of gas headlights, with Prest-O-Lite gas tank, robe rail and foot rest, and a complete set of appliances

mensions. It is water cooled, has double ignition with Remy magneto, combination splash and forced lubrication and a stand-



STANDARD TOURING CAR FOR FOUR PASSENGERS

ard form of carburetter. The transmission system includes the use of a plain, leather faced cone clutch, three speed, selective type sliding gearset and shaft drive. The change gear and rear axle journals are

coupe will be advanced in price from \$2,400 to \$2,500; the two passenger from \$2,150 to \$2,250; the Victoria phaeton from \$1,900 to \$2,000, and the roadster from \$1,800 to \$1,850.

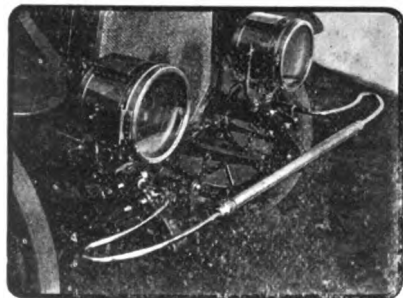


### Paris Salon Revival for December.

Taking a tip from the American automobile manufacturers, the French makers this year are to hold the Paris Automobile Salon themselves, and are to have a uniform style of decoration for the exhibits, thus keeping down expenses and dividing the show profits among themselves. The Salon was omitted last year, by agreement among the makers, but is revived this year for December 3d to 18th in the Grand Palace. In the past the Salon has been under the control of the Automobile Club of France, which organized a show committee to which some of the automobile manufacturers were admitted. The latter, however, did not have any decided voice in the management or any share in the profits. This time the show will be managed by a joint committee of the four most important trade associations in France, with the Automobile Club admitted to only an honorary position on the committee. Although the general decorative effects will be on as grand a scale as heretofore, the stands will be placed at the disposition of the exhibitors complete with uniform decorations, fittings and electric lights.

### Steel Loop Springs for a Bumper.

Giving a great degree of resilient flexibility and contact yield, but amply strong and stout against serious shock, a new front bumper has been brought out by the Accessories Mfg. Co., 1926 Broadway, New

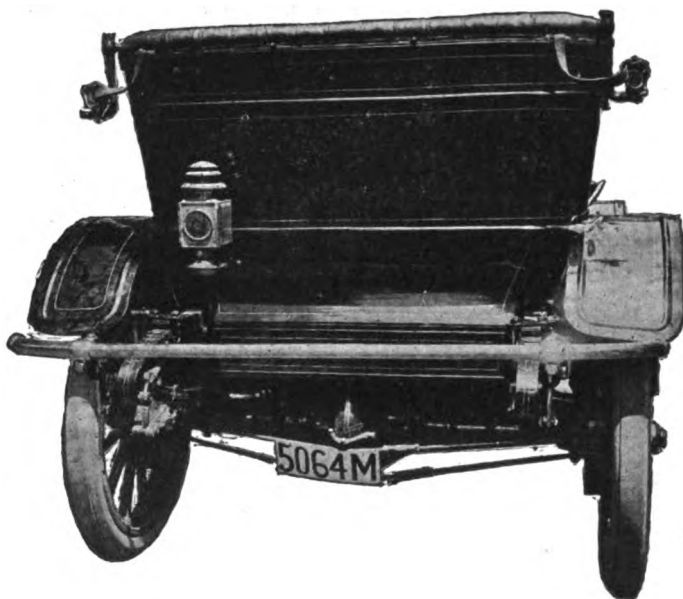


York, under the name of the Safety Auto Bumper. Spring steel, suitably looped to give the spring yield, is used for the construction of the two ends, as shown in the accompanying illustration, while the center piece is made of steel pipe covered with brass tubing instead of merely being plated. The center is capable of telescopic adjustment so that the bumper may be made the proper width for any car. No holes need be drilled in the springs or car frame for

attaching the bumper, as efficient screw clamps are provided. The device, which sells for \$15, is attached on a line with the top of the frame, in order that it may protect the lamps and fenders.

### Providing Against Rear Collisions.

Not all collisions or traffic bumps in which motor cars figure are of the "head-on" variety, and because of the possibilities of rear-end damage that threaten the



machine, the idea of equipping a bumper to the back of the car has been evolved. Among the first to adopt the suggestion is a Detroit motorist, a view of whose car is shown in the accompanying illustration, disclosing the application of a "Swivel-action" bumper supplied by the Emil Grossman Co., of New York City, the manufacturer of the device. The bumper is attached to the rear spring hangers, and provides protection for the rear axle, gasoline tank, tail lamp, fenders and the body work.

### Clean Ball Valves for Carbureters.

Carbureters of the type in which the extra air supply is admitted through a ring of holes closed by a series of round balls of different weights, require to be kept scrupulously clean. If the ball seats are permitted to become clogged with dust and oil or mud, the balls will not seat properly, with the result that the regulation of the mixture will be upset in a most puzzling way.

### Band Brakes for Horse-Drawn Fire Engine.

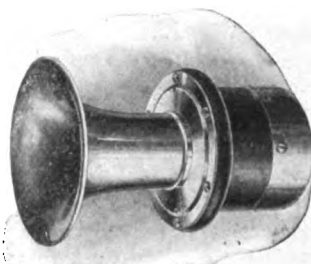
Recognizing the power and efficiency of a band brake when compared with the old style shoe type, the fire department of Bridgeport, Conn., has installed Duplex band brakes on all its fire engines. The use of band brakes on heavy horse-drawn vehicles opens a new field to manufacturers of effective brakes.

### Chicago Show Plans are Perfected.

Drawing for space in the tenth annual National Automobile Show at Chicago, Ill., for the first week and for the second week will be entirely distinct, according to an announcement by the National Association of Automobile Manufacturers, and no concern will be permitted to draw space and occupy it for two weeks, the first with pleasure cars and the second with commercials. Accessory exhibitors, however, will be permitted to contract for one week or both weeks, as they may prefer. The show, as previously announced, will occupy two weeks, commencing January 28th and ending February 11th. The first week's show will open at 2 p. m. on Saturday, January 28th, and will close at 10:30 p. m. Saturday, February 4th. The exhibits will consist exclusively of pleasure vehicles and accessories. The second section will open at 8 p. m. on Monday, February 6th, and will close at 10:30 p. m. Saturday, February 11th. Commercial vehicles will be given first choice; pleasure vehicles which have not been exhibited the first week, second choice; and other pleasure vehicles, third choice in the automobile section. More space than ever before has been allotted to the Motor and Accessory Manufacturers, which association will make its own allotment. A motorcycle section also is to be a feature of the show. Application blanks and diagrams will be mailed to the trade not later than September 1st, from the New York offices of the National Association of Automobile Manufacturers, 7 East 42d street.

### Electric Monoplex in a New Model.

Slightly smaller and correspondingly less in price than the regular electric Monoplex horn, a new model Monoplex, styled the type "M," has been produced by the Atwater Kent Mfg. Co., of Philadelphia. Pa.



The new horn, which is shown in the accompanying illustration, is designed to combine a powerful tone with substantial construction and pleasing appearance. It has a 4-inch vanadium steel diaphragm and a 4-inch projector. The operating mechanism otherwise is identical with the larger size, having the improved vibrating system which now is a feature of the latter and which is louder and heavier in tone than the one previously used. The horn for the type "M" is of seamless brass.

**CLOSED FRONT MODEL IS ADDED**

**Glide Line Discloses Six Styles Including Two New Types—Five Passenger Car is Offered.**

Following a season of several years duration during which it has not been found necessary to introduce any really material changes in the construction of the chassis it has been decided to continue the Glide

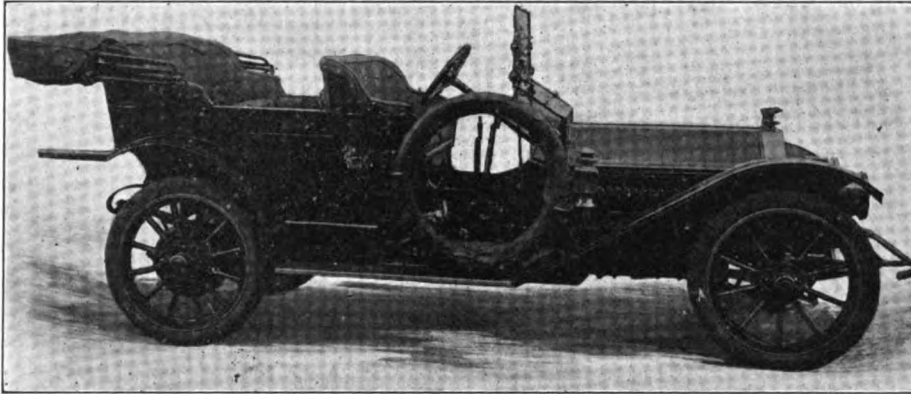
arranged at a still more rakish angle in conformity with the prevailing custom, which gives to the car a decided "roadster" appearance.

The remainder of the line includes the seven passenger touring, roadster, two and four passenger "scout" models and the delivery car, which is a special adaptation of the standard gear to commercial needs. An important point in this connection is the fact that with the introduction of the two new models the car will be sold for

particularly sturdy and is noteworthy for several original features. The motor is of the standard, four cylinder vertical type, water cooled and with bore and stroke of  $4\frac{3}{4}$  by 5 inches, and is rated at 45 horsepower. Self-contained lubricating system, double ignition, and other modern specifications are embodied in it.

The master clutch is of the multiple disc type, running in oil. The change gear is an early Glide development, being of the axle mounted pattern, affording three forward speeds, very rigidly constructed and driving the differential shaft through direct bevel connection, the active member of the axle group being mounted on five Timken roller bearings.

The brakes are of unusually large size, 16 by 3 inches, and are faced with special fabric lining. The tires are 36 by 4 inches on the five passenger touring and roadster models, 36 by  $4\frac{1}{2}$  inches on the seven passenger touring and torpedo models, and 40 by 4 inches on the "Scout." The wheel base is 120 inches on the seven and five passenger touring and the torpedo models, and 122 inches on the "Scout" and the roadster.



THE NEW GLIDE FIVE PASSENGER ROADSTER

car practically in the same form. This announcement is made by the Bartholomew Co., Peoria, Ill., concurrently with the disclosure of two new styles and the statement of a reduced price schedule. The line as produced henceforth will, therefore, consist of no less than six models, all of which are built upon the standard gear with slight modifications according to the demands of the individual vehicle.

The additions to the line which are innovations at this time, include a striking member of the closed front type, known as the torpedo model. As the accompanying illustration of the car shows, it is distinguished by a characteristic form of concave dash, which forms a close housing over the fore part of the foot board, its outline being substantially parallel to the angle of the steering post. The side rail is nearly on a level with the top of the bonnet, thus giving the machine that low and rangy appearance which is so much sought by designers at the present time, while at the same time the seat backs are sufficiently high to afford measurable comfort to the occupants.

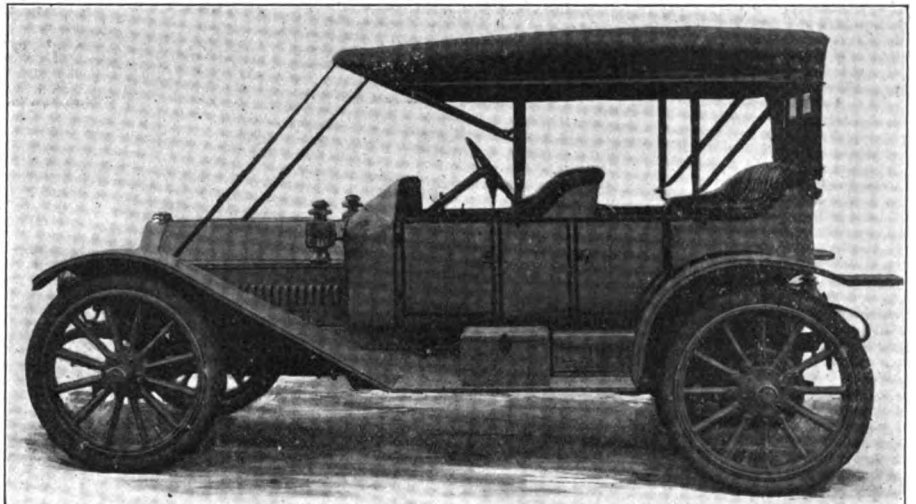
The five passenger touring car, which is the other addition announced at this time, is the first machine of that capacity which the Bartholomew company has produced. In general lines, it follows the style of previous models. But it is more nearly an enlargement of the roadster than a condensation of the touring car, in general character, although in most respects it is an intermediate type between the two. It is long and low, and, as illustrated, with full equipment, it presents a very practical appearance. The steering column has been

\$2,000, instead of \$2,500, as formerly. The only exception is in the case of the torpedo model, the price of which has been fixed at \$2,150.

The equipment remains as heretofore

**Light on Electric Lighting Problems.**

For the benefit of automobile manufacturers and motorists interested in the subject of electric lighting for motor cars or intending to adopt electrical equipments, the engineering department of the National



THE NEW GLIDE TORPEDO EQUIPPED WITH TOP

with the exception that, instead of using the Eisemann magneto exclusively, an option now is offered between that system and the Bosch. In addition to this, the list price asked for such portions of the extra equipment as searchlights, folding wind shields and extra tonneau seats have been lowered slightly. The standard stock equipment includes in addition to the magneto robe and foot rails, dash and tail oil lamps, horn, pump, jack and special tool kit.

The mechanism of the Glide chassis is

Electric Lamp Association, Cleveland, Ohio, has prepared a special bulletin dealing with the subject in a most practical and thorough manner. Besides listing the various types and styles of lamps produced especially for automobile use, generating and wiring systems are discussed at length and most suggestively. In addition there are photometric tables and light distribution charts calculated to afford the technically inclined considerable assistance in contriving or adapting lighting arrangements for any specific purpose.

**FRIENDLY PULL FOR AEROPLANE**

**Motor Car Makes Ascent Possible for Flyer—Prevents Disappointment of Rubber Men at Boston.**

Some aeroplanes can fly for miles and miles, and can even rise from the ground under their own power and without a special starting rail or similar aid, but not all seem to have progressed so far, for the bird of the air shown in the accompanying illustration has troubles of his own. It was "featured" at the recent 12th annual outing of the Rubber Club of America, at Boston, Mass. Every time it was attempted to

ble for violating the speed law because of the fast schedule arranged by the Government.

**Hobo "De Luxe" Makes His Appearance.**

"Beating" freight trains is no longer the goal of the hobo; nowadays he jumps touring cars and rides on the trunk rack instead of on flat cars, or in box cars. One of them has made such a success of this new scheme that he managed to travel from Oshkosh, Wis., to Indianapolis, Ind., without knowledge or consent of the owner of the car. Arriving in the Hoosier town, he jumped from the rack, went to the driver's seat and thanked him for the "lift." Whenever the car stopped at intermediate points, Weary Willie managed to get off without

**TRANSPORTS "JUICE" BY MOTOR**

**Ingenious Ice Cream Maker Fools a Power Company—Utilizes Current from His Electric Automobiles.**

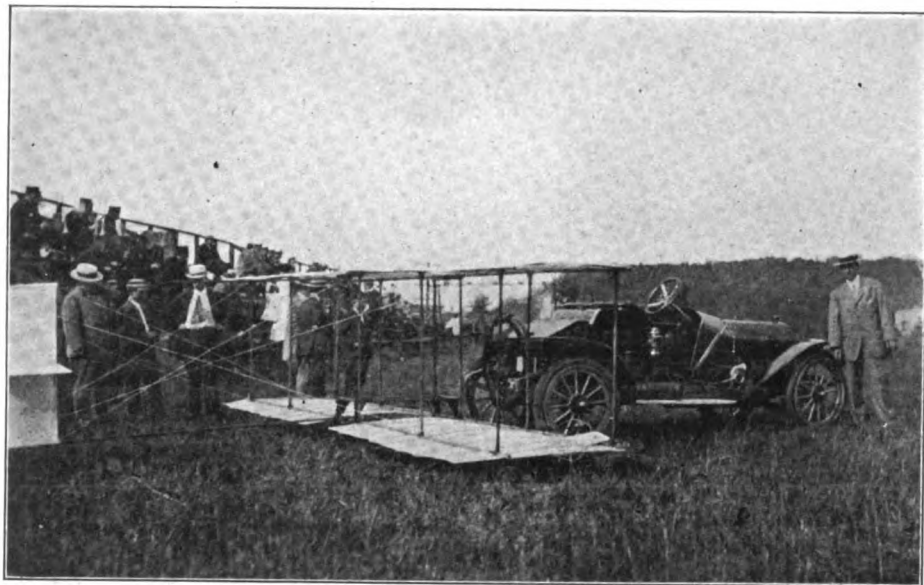
That electric wires and a connection with a power house are not absolutely necessary in order to drive the electric machinery of a factory was proven by J. George Smith, a candy and ice cream manufacturer of St. Paul, Minn. To the surprise and disgust of the manager of the electric power company which used to supply him with "juice," he pressed his Waverley electrics into service when he needed power, and the attempt of the power company to coerce him into paying a higher price for the electric current therefore was abortive.

It all happened because of a difference of opinion between the Northern Heating & Electric Co. and Smith over the price of the "fluid." Smith thought the price demanded too high, when the company raised his rate 25 per cent., and cut out their service. Then the company cut him out. But Smith had five electric delivery wagons and promptly pressed them into service. While two of the cars delivered the necessary power to the ice cream machines inside, three were sent to the charging station of an electric power house. When these returned two were again used in running the factory while the others were charged, thus affording a good illustration of the mobility of electric vehicle equipment.

Mr. Smith declared he got the idea for his present exploit over a decade ago. He had electric bulbs in his residence, but there were no wire connections with a power company. Thereupon he took his electric car home, connected the house mains with his battery and ever since has been able to enjoy the benefits of electric lights without bothering to subscribe for local service. It was by a similar method that he managed to circumvent the electric company when the "difference" arose.

**Turned the Trick with His Toes.**

That a good deal of tricky work was done on the last Glidden tour, despite the close observation by the proper officials, is an open secret among people who were in the thick of it, and who know what was going on. One of the drivers, in particular, is said to have turned as slick a trick as can be imagined. Adjusting the oiling device during the day's run was a strict violation of the rules, but this driver "got away with it," because the "observer" was not sufficiently observing. "John"—as the driver for convenience may be called—is related to have slipped off his shoes and adjusted the oiling device with his toes, while telling the official a funny story.



COLE "30" AS AN AEROPLANE STARTER

make the machine rise, it balked until a motor car came to its aid and pulled it along the ground, giving it sufficient speed to rise from the earth. The car, which was a Cole "30," fulfilled its role as aero-aeroplane assistant to the satisfaction of all concerned, and whenever the Rubber Club of America gives another outing with aeronautical trimming, it is very likely that one of these little machines will be at hand to lend a kindly helping "pull" to the giant would-be birds.

**Where Uncle Sam Breaks Speed Law**

In order to learn for himself whether or not the schedule for mail collecting automobiles was such that it was necessary to violate the speed laws, Judge James A. Collins, of the Indianapolis Police Court, trailed one of the mail wagons one evening last week. He followed the car for 21 miles in another automobile, the speed most of the time being 35 miles an hour, and the machine finishing two minutes late. Judge Collins made the trip with an official of the company which furnishes the mail cars, and which charges it is not responsi-

being seen, and to jump on again before the car had gathered too much headway

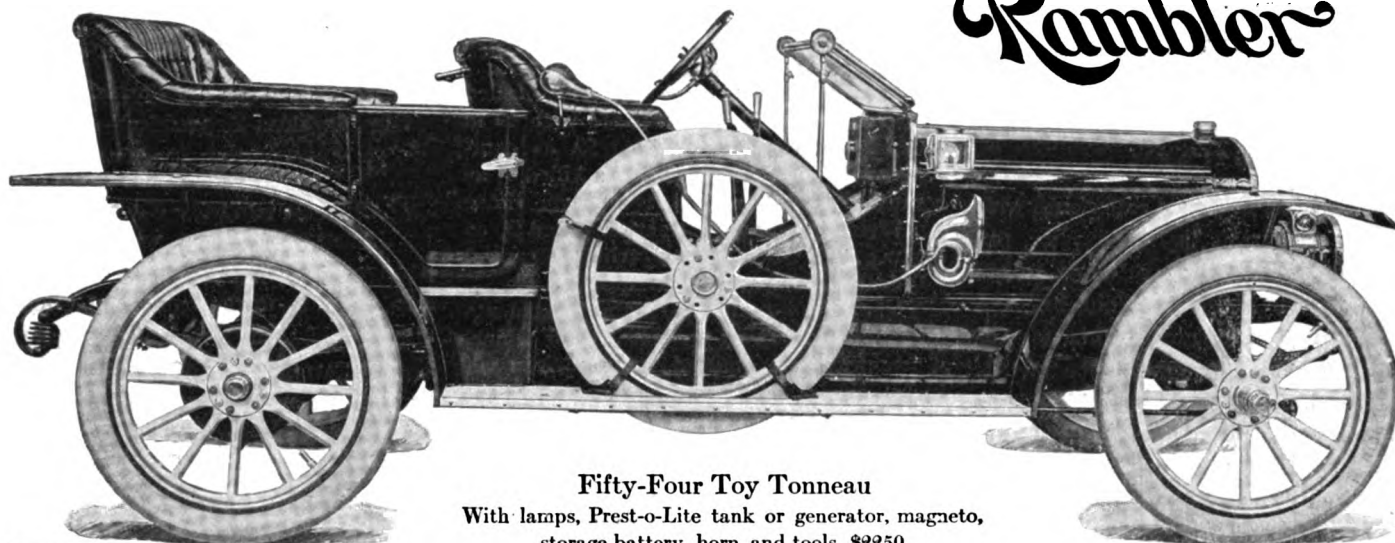
**Motor Cars a Foe to Silk Hats.**

Although it has almost grown to be a kind of sport to blame the automobile for everything and anything under the sun, from measles to hard times, it remained for a certain hat manufacturer, apropos of bankruptcy proceedings, to explain that the automobile had driven him to the wall—by diminishing the use of the tall silk hat. Barely one-tenth as many silk hats are sold at present in the United States as were sold 10 years ago, it is claimed, and, of course, the automobile has to take the blame.

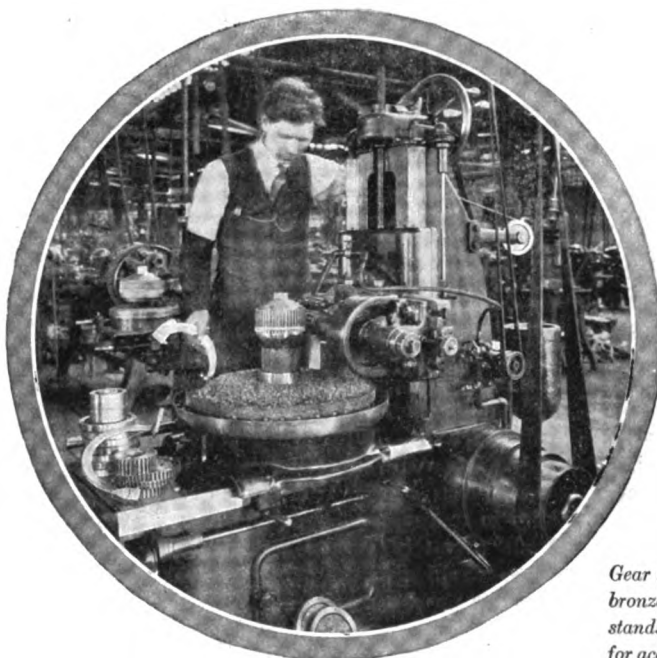
**Columbus Wants Postoffice Cars.**

Believing that three automobile mail collecting wagons will accomplish the work of the nine horse-drawn wagons now in use, the Columbus (Ohio) post office authorities have installed three motor cars. Should the work done by these cars be satisfactory, the fire, police, park and other departments will order cars for their use.

# Rambler



**Fifty-Four Toy Tonneau**  
With lamps, Prest-o-Lite tank or generator, magneto, storage battery, horn and tools, \$2250.



*Gear shaper cutting Rambler bronze gear. The workman stands ready to gauge the gear for accuracy when completed.*

Silence, smooth running qualities and perfect balance have been attained through the careful grinding of Rambler parts and their accurate fitting. Reciprocating parts, such as pistons, connecting rods, crank shafts and fly wheels are weighed and balanced to eliminate vibration. These points alone illustrate the superiority of the Rambler engine.

## The Thomas B. Jeffery Company

Main Office and Factory, Kenosha, Wisconsin

Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco



## MOTOR MAIL LINE FOR BRITAIN

**Regular Service to be Established Between London and Birmingham—Vehicles to Travel at Night.**

After five years of varied experience with automobile equipment in mail service, the British postal authorities are about to establish a regular motor mail line between London and Birmingham. This is announced in a report by Consul-General Albert Halstead, of the steel city, which deals with the use of automobiles for the carriage of mail in the vicinity of Birmingham and between Birmingham and London.

"The use of motor wagons for carrying mail was instituted by the Birmingham post office some five years ago," says the consul, "but it was not altogether successful, because at that time the manufacture of automobile engines had not reached its present state of perfection, and delays, due to the breaking down of machinery, seriously interfered with the service. Now that automobile engines have reached a condition of efficiency which makes them reliable, the post office has increased the service. For some little time there have been services of mail between this city and adjacent towns. By these automobile wagons letters are now carried with great regularity. At first such services were only used for the parcels post. These motor wagons are so timed as to reach Birmingham at midnight and then are returned with letters and parcels.

"The post office is now instituting a motor service connecting London and Birmingham. The wagons to be used will carry a maximum load of 5,040 pounds and travel at a speed of 12 miles an hour, one wagon running nightly in each direction. The wagon leaving London will start at 7:15 in the evening and be due in Birmingham at 8:10 the next morning, and that from Birmingham to London will leave at 8:25 p. m. and be due at the general post office in London at 7:20 a. m. The distance between London and Birmingham is 113 miles. These motor wagons will connect with other motor wagons running from intermediate towns, so as to cover greater territory.

"It is believed that this service will materially improve the postal service; it will naturally reduce the amount of carriage by rail, and will probably be more economical."

### One Year's Accidents in England.

Statistics of street accidents in England for 1909 show a remarkable increase over the previous year, the increase being almost as great for horses as for motor vehicles. In 1908 the fatal accidents were evenly shared between the two classes, but

last year the increase of motor traffic is reflected in the casualty figures.

In London motor cars and cycles killed 86 persons in 1909, as compared with 49 in 1908; motor omnibuses killed 59, as compared with 42; horse omnibuses killed 9, as against 7. As regards tramways, those employing mechanical traction killed 3, as against 0. Other horse vehicles caused 120 deaths, compared with 101.

Thus the total of fatal accidents amounted to 303, as against 216, of which, if tramways are omitted, motor driven vehicles are responsible for 145 and horse drawn for 129, as compared with 91 and 108 respectively.

The figures for all accidents are in 1909 for motor driven, 4,831; for horse driven, 6,337, as against 3,273 and 4,828.

### Would Commandeer Cars in Wartime.

Commandeering in time of war of all private automobiles holding four persons or more, for the transportation of troops, is proposed by Major-General Frederick D. Grant, in his annual report to the War Department, issued this week. He recommends a national law authorizing the Federal government to take this step should occasion require, and also advises the construction of large numbers of motor trucks for the transportation of army supplies in the field. He declares the use of such trucks would save both time and money. The commandeering of touring cars which he suggests carries with it provisions for the reimbursement of the owners on an equitable basis. With the improvement of roads, General Grant foresees the time when troops will be transported long distances in motor cars, and the appropriation of all privately owned machines, he believes, would give the army efficient transportation on short notice.

### Chauffeur Goes on a Long "Joy Ride."

After purchasing 42 gallons of gasoline, four inner tubes, four tire shoes, several gallons of oil and ordering all of this charged up to his employer, Richard Lopez, a chauffeur, of Concord, Mass., has disappeared with the limousine owned by George L. Shaw, an architect. When last seen, the chauffeur was driving a party of three in the direction of Waltham, Mass. The car is numbered 15,168 and bears the Massachusetts license number 5,924. Lopez is a Mexican, 25 years old and 5 feet 10 inches in height.

### Consul Sees an Opening in Germany.

According to the American Consul at Plauen, the field in his part of Germany "is well worth the attention of American automobile manufacturers." Motor cars only recently attained popularity there, and as the purchase of other American products has increased each year, he believes the sale of medium priced automobiles also is easily possible.

## MALAGA WANTS ONLY LIGHT CARS

**Narrow Streets of the Spanish City Make 'Big Machines Impractical—Chance for American Machines.**

Despite the present political and religious upheaval in Spain, which threatens to paralyze all business activities in the peninsula, there is, in the opinion of Consul Edward J. Norton, a promising market for the cheaper class of American cars in and around Malaga, where the consul is stationed. According to his report to the State Department, there are in Malaga and the surrounding district only 32 gasoline automobiles, 26 of which are French, four German, and two British. "The narrow streets of Malaga and the road conditions in that district," says the consul, "are responsible for the small number of motor cars now in use, but there are comparatively few wealthy people in the city, and sales opportunities are consequently limited. Gasoline sells at about 60 cents per gallon, and the cost of operating a car is, therefore, a heavy item of expense.

"No efforts were made to push sales in this district until February last, when an English mechanic established a garage and repair shop in Malaga, acting also as agent for a British motor-car manufacturer. It is thought that a few low-priced American cars might be introduced, and the owner of the garage referred to (name and address on file at the Bureau of Manufactures) is ready to receive catalogs and price lists from manufacturers of runabouts. Quotations should include prices of cars delivered, c. and f. Malaga.

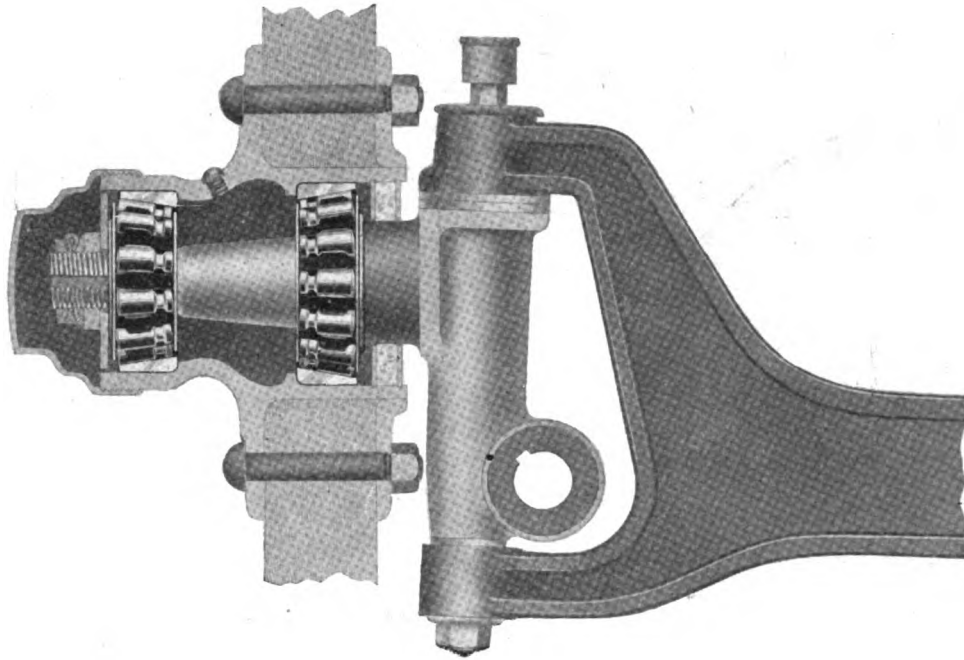
"American lubricants are used here almost exclusively. Tires, pumps, and all other accessories come from England."

### Viennese Cabmen Oppose Taximeters.

Commercial Agent Henry Studniczka, writing from Vienna, states that the passage of an ordinance by the municipal council compelling the use of taximeters on all two-horse cabs, may have a decided influence on the market for automobiles in that city. He says:

"The cabmen opposed the ordinance on the ground that the use of taximeters would prove ruinous to their business, inasmuch as they would be unable to maintain a high-grade vehicle and fine horses under the charges provided in the measure. As the popularity of these cabs has been largely responsible for the slow introduction of the public automobile in Vienna, it is believed that the ordinance will tend to increase the use of the latter. In fact, if the predictions of the cabmen and others are well founded, the introduction of the taximeter is a death blow to the two-horse cab in Vienna.





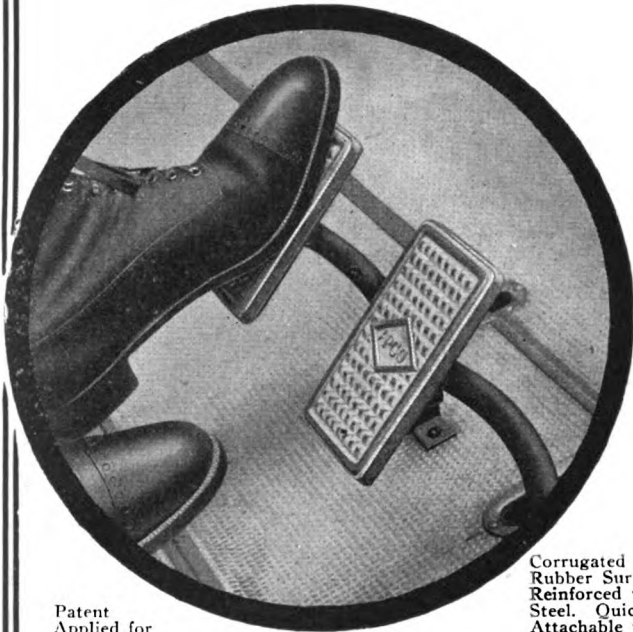
## Timken Roller Bearings

¶ The above cut shows Timken Short Series Roller Bearings installed in a Front Hub. It will be noticed that on account of the tapered construction of our bearings they are peculiarly adapted to this particular class of wheel work, since they are capable of carrying, not only the dead weight of the car, but also capable of taking care of the great end thrust which is present in all automobile wheel service. This is one of the important and exclusive features of the Timken Roller Bearing, namely, that it can stand as much end thrust as radial load.

¶ All bearings wear in time, and as a consequence, continuous end thrust on wheel application causes such wear that in a given time, or a certain number of miles of service, it is necessary to replace those bearings of the annular and other types in which the wear cannot be taken up.

THE TIMKEN ROLLER BEARING CO.  
Canton, Ohio

# Your Foot Can't Slip On An APCO Pedal Grip



Patent  
Applied for

Corrugated  
Rubber Surface.  
Reinforced with  
Steel. Quickly  
Attachable to Any Car

On July 27-28-29 an actual count of 1,000 private cars standing in the public garages of New York City showed that 427 of them—NEARLY ONE HALF—had pieces of rubber, rubber hose, rags or some other home-made anti-slipping contrivance on their pedals. This test proves two things:

1. The NEED for pedal grips.
2. The fact that drivers and owners REALIZE this need.

Metal pedals—with their hard, icy-smooth, slippery surfaces—are always *uncomfortable* and often *unsafe*.

You know this if you've ever held your clutch out all the way down some long grade.

You know this if you've ever driven slowly on high gear through traffic.

You know this if, when you wanted your brakes—*surely* and in a *hurry*—your foot has slipped, or *felt* like slipping and robbed your muscles of half their power.

Such a slip may easily mean a disaster. Such a slip often *does* mean a disaster. Hundreds of costly little smash-ups and not a few serious accidents are caused every year by the *unsure, insecure* footing afforded by metal pedals.

## Less Vibration

The thick rubber cushion takes up vibration and jar. APCO Pedal Grips *rest* you. Slippery metal pedals *tire* you.

All this annoyance, discomfort and danger may now be simply avoided by using **APCO Pedal Grips**.

Quickly attachable to the pedals of any car, these Pedal Grips provide a *large, solid, steadfast* pressure-surface for the foot.

The corrugated rubber *clings*—the foot *cannot* slip.

The surface is a *cushion*—rough—adhesive—substantial—secure. The foot closes down on it with a feeling that it is "THERE!"

And the driver feels *free* to throw upon the Pedal *all* of his muscle—*all* of his weight.

APCO Pedal Grips give a *feeling* of security, for they give security *itself*.

## They Look Well

These Pedal Grips are an actual *ornament*—an added touch of refinement worthy of any car made.

The price of APCO Pedal Grips is \$3.00 per pair—a form of insurance too valuable and too inexpensive to be disregarded by any owner.

If your supply house or your garage has not yet secured APCO pedal Grips, they can easily get them for you. Or, on receipt of price, we will send them to you prepaid.

You will not know what 100 per cent driving-comfort means until you have APCO Pedal Grips on your car. Get them today.

**AMERICAN PEDAL CO., Makers, 1733 Broadway, New York**

## RECENT PATENTS.

963,240. Steering Wheel. Arthur G. McPherson, Highland Park, Ill. Filed Nov. 18, 1907. Serial No. 402,665.

1. The combination with a tubular steering shaft, of a steering wheel rigidly secured thereto, said wheel being provided with fluid chambers in its rim and hub portions and with a passage connecting said chambers, a smaller tubular shaft mounted within and forming an annular space in said steering shaft, said smaller tubular shaft discharging into said hub fluid chamber, and a tubular connection between said annular space and the rim fluid chamber.

963,304. Vehicle Wheel. Walter W. Macfarren, Pittsburg, Pa., assignor to Wm. H. Donner, Pittsburg, Pa. Filed March 9, 1907. Serial No. 361,624.

1. A vehicle wheel for road use, having a rim, a solid rubber tire mounted thereon extending to the edge of the rim, and a metallic tire with a cylindrical outer surface mounted on said rim outside of the said rubber tire, the diameter of the said metallic tire being substantially less than the diameter of said rubber tire.

963,412. Magneto Generator. Charles W. Wilson, Edgewood, Ill. Filed July 26, 1909. Serial No. 509,498.

1. In a magneto generator, the combination of a U-shaped field magnet formed of a single piece of material and having resilient limbs, pole pieces applied to the limb of the field magnet, an armature mounted between the pole pieces, and an adjustable member between the pole pieces for spreading them apart or permitting them to come together.

963,612. Accessory for Internal Combustion Engines. Eugene D. Means, Towanda, Pa. Filed Feb. 16, 1910. Serial No. 544,208.

1. An accessory for internal combustion engines, comprising a block of insulating material, two metal plates secured thereto and electrically separated thereby, one of said plates adapted for attachment to a

spark plug, a binding post carried by the other plate, and a switch lever pivotally connected to one of said plates and adapted to be electrically connected with and disconnected from the other plate for closing and opening the circuit of the spark plug.

963,615. Sled. Fred A. Miller, Cadyville, N. Y. Filed June 18, 1909. Serial No. 502,949.

A sleigh of the class described comprising a body, springs depending from the latter, front and rear runners fixed to the springs, each runner formed of a skeleton frame structure, vertical housings fixed to the rear runners and containing slots in their inner walls, a shaft having its ends passed through the slots and freely slidable therein, split boxings receiving the ends of the shaft and slidable in the housings, expansion springs having their bearings upon the tops of the housings and the boxings and being adapted to maintain in the latter in the lower portions of the housings, grooved squared portions formed on the shaft, propeller wheels fitted on the squared portions of the shaft, and wedge-shaped members engaging in the grooves in the squared portions of the shaft to detachably lock and hold fast the wheels on the latter.

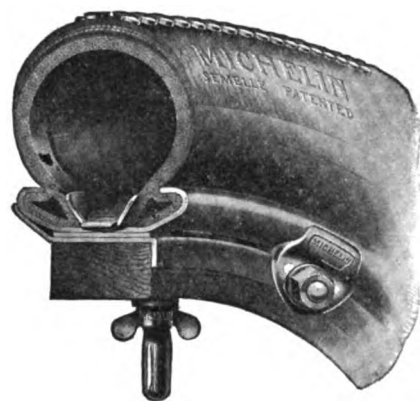
963,711. Electric Sparking Device. Joseph Arthur Jeffery and Benjamin Alfred Jeffery, Newark, N. J., assignors to Jeffery-De Witt Company, Newark, N. J., a Corporation of New Jersey. Original application filed Aug. 15, 1906. Serial No. 330,620. Divided and this application filed Feb. 4, 1908. Serial No. 414,277.

1. An electric sparking device comprising an insulating block provided with a recess in one end, and a conductor embedded in said insulating block and terminating at the inner end of said recess, the diameter of said recess being so restricted that accumulations of short circuiting media therein would be insufficient in quantity to carry the current without disintegration of such media.

963,804. Carburetter. John Peterson, Chicago, Ill., assignor to Dibelka & Breska,

# Michelin

## DEMOUNTABLE RIM



*The Original Type*

**Simplest  
in Construction  
Lightest in Weight  
Easiest to Operate  
Absolutely Secure  
No Lugs  
nor Security Bolts**

**MICHELIN TIRE CO.  
Milltown, New Jersey**

# KLINE KAR

**Watch This Space for Our  
1911 Announcement**

**B C K MOTOR CAR CO., York, Pa.**

Chicago, Ill., a Copartnership. Filed June 30, 1909. Serial No. 505,174.

1. In a carburetter, the combination of a mixing chamber, means for admitting fuel thereto, regulatable means for admitting air to said mixing chamber, a suction operation valve governing the outlet from said mixing chamber, and connections between said valve and said air admission means whereby actuation of said valves automatically actuates said air admission means, substantially as described.

963,822. Muffler for Explosive Engines. De Wane B. Smith, Deerfield, N. Y. Filed Dec. 13, 1909. Serial No. 532,772.

1. A muffler consisting of a cylinder and heads having inlet and outlet openings respectively and subdivided by one or more main transverse centrally perforated partitions into two or more sections, each section composed of three chambers formed by placing in said sections a fully perforated cylinder of relatively small diameter having a middle imperforate partition, arranged longitudinally of and substantially axially in the said sections and registering at their ends with the inlet and outlet openings and with the said openings in the one or more main partitions, substantially as set forth.

963,839. Transmission Gearing. Charles A. Ward, Pittsburg, Pa. Filed Feb. 13, 1909. Serial No. 477,691.

1. The combination with a shaft and a bearing therefor, of a wheel freely mounted on the shaft and having an inner annular periphery, a companion head rotatably mounted on the bearing and engaging the periphery of said wheel, a hub secured to the shaft, oppositely arranged friction shoes, means connecting the shoes with the companion head, and pairs of pitmen connecting the shoes with the hub at opposite sides thereof, one pitman of each pair being operative to press the shoe into engagement with the wheel when the speed of the hub tends to exceed the speed of the wheel, substantially as set forth.

963,840. Grease Cartridge or Container. Richard V. Whitaker, Jr., New Brunswick, N. J. Filed Nov. 29, 1909. Serial No. 530,338.

As a new article of manufacture a grease cartridge or container comprising a cylindrical body portion having an enlarged end provided with an interior screw thread and an outwardly projecting resilient flange at the extremity of said enlarged end, a cap secured on the opposite end of the body portion and formed with a threaded neck

of less diameter than said body and interiorly threaded, said neck having a resilient outwardly projecting terminal lip, and members adapted to be screwed into said threaded portions of the cartridge provided with flanges arranged to engage the resilient lips and form hermetic joints.

963,870. Vehicle Spring. Dorr R. Close, Chicago, Ill. Filed June 25, 1909. Serial No. 504,280.

1. A vehicle spring structure comprising in combination two parti-elliptical springs, a coiled spring interposed between vertically substantially aligning portions of said springs, a scroll extension of one of said leaf springs extending beyond the end of the other, and means for checking the recoil of the said second member comprising a substantially laterally rigid connection between the scroll portion and the end of the opposite leaf spring to which the coiled spring is connected.

963,874. Driving Gear for Motor Cars. Paul Daimler, Unterturkheim, Germany. Filed Oct. 25, 1906. Serial No. 340,550.

In a motor driven vehicle, driving shafts arranged in a straight line, a paraboloidal hyperboloidically toothed pinion secured on each of the said shafts, a driving axle, wheels mounted thereon at a slant and a paraboloidal hyperboloidically toothed internal wheel on each of the said driving wheels, in gear with the said pinions, all combined substantially as and for the purpose set forth.

964,002. Motor Sleigh. Guy Dokter, Andover, S. D. Filed Feb. 9, 1910. Serial No. 542,994.

1. The combination of a sleigh having a body supported by spaced runners, means on said sleigh body to receive the axles of a motor vehicle and support the same, a frame arranged in advance of the sleigh and having its rear end supported by the latter, a reach at the front end of the frame, a front axle pivoted to said reach, supporting and steering wheels on said axle, a steering mechanism for said wheels mounted on the frame and having an actuating element within reach of the operator of the motor vehicle, a propeller in said frame, means for raising and lowering said propeller, the last mentioned means being under the control of the motor vehicle, and gearing for driving said propeller arranged in the frame and in the body portion of the sleigh and adapted to be driven from the power mechanism of the motor vehicle.

964,049. Pneumatic Tire. Milton T. J.

Ochs, Allentown, Pa. Filed May 4, 1909. Serial No. 493,837.

1. The combination of a wheel felly, a rim extending around the same and formed with a continuous channel, an air tube arranged in the channel and having ports in its outer wall, a plurality of tire sections disposed around the tube and bearing against the said ported wall, each tire section being open at its base, a ported clamping plate in each tire section having separate portions arranged to engage the base and outer wall of the tube, the ports of the clamping plates being arranged to register with the ports of the air tube, and fasteners for securing the tire sections and clamping plates to the air tube and the aid tube within the rim on the felly.

## AUTO TIRES

Prices subject to prior sale

28x3 .....	\$14.50	30x4 .....	\$26.50
30x3 .....	15.00	32x4 .....	28.75
30x3½ .....	21.50	34x4 .....	30.75
32x3½ .....	23.00	36x4 .....	31.50
34x3½ .....	23.50	34x4½ .....	36.75

These are Imperial 1910 tires, all brand new stock and are the greatest bargain we have ever been able to offer. Our terms are cash with order or C. O. D. When cash in full is sent we allow a discount of 5%. On C. O. D. shipments we require a deposit sufficient to cover express charges one way. You take no risk, for we agree to refund the purchase price if the tires are not satisfactory and you return them to us unused.

**FACTORY AUTO SUPPLY CO.**  
1229 Michigan Ave. Chicago, Ill.

## The Warner Auto Meter

is by far the cheapest if you figure the price by miles of travel or years of service. You CAN afford Quality and care for the trouble proof satisfaction which goes with it.

**WARNER INSTRUMENT CO.**  
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It is not possible for any chain to be better than  
**BALDWIN CHAINS**  
BALDWIN CHAIN & MFG. CO.,  
Worcester, Mass.

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At your dealers or mailed on receipt of price.

**JEFFERY-DEWITT CO.**  
65 Butler Ave., DETROIT, MICH.



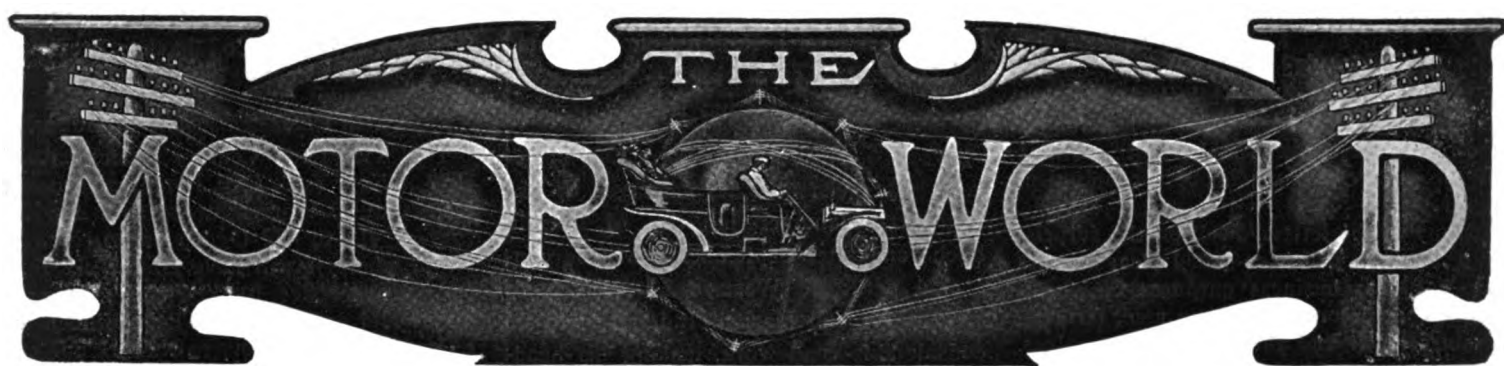
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## ELECTRIC INTERESTS ORGANIZED

**Makers of Vehicles and Central Station Concerns Form National Association to Boom Business—Their Plans.**

Taking shape from a movement that has been in progress for several years looking to greater co-operation between the makers of electric vehicles and the producers of electric power current, an organization which is to be known as the Electric Vehicle Association of America, has been incorporated at Albany, N. Y., and is to have its principal offices in New York City. The new association is in no sense a combination or exclusive ring of makers of electric vehicle and battery manufacturers, as the active membership is equally open to central station corporations supplying electric current, makers of motors and electric vehicle body manufacturers, while electric company employees, owners of electric vehicles and others who are interested in the electric vehicle transportation problem are eligible to the honorary membership list.

Chief among the objects of the association is the promotion of the adoption and use of electric vehicles by the public for pleasure and commercial purposes, and active co-operative work between the concerns supplying electric power and the companies making the vehicles. Efforts along this line have been conducted already in a local way in different parts of the country, where the electric vehicle makers have interested the central station companies, but under the new plan the movement will be national in scope.

An organization known as the Electric Vehicle and Central Station Association, which has been active in this direction in New England, is to be absorbed, and the Pacific Coast Electric Vehicle Association has indicated its desire to affiliate with the new national body. In addition to the offices in New York, branch offices are to be established in the near future in Boston

and in San Francisco, while the branch office system later may be extended to include practically every large city in the United States.

Formal organization and the adoption of constitution and by-laws takes place the latter part of this week, the expectation being that William H. Blood, Jr., of the big electrical contracting firm and holding company, Stone & Webster, Boston, Mass., will be made president. The incorporators include Hayden Eames, of Cleveland; William H. Blood, Jr., and Frank J. Stone, of Boston; Charles Blizard, of Philadelphia; Herbert H. Rice, of Indianapolis; Weldon H. Freeman, of Brooklyn; Frank J. Gyer, of Orange, N. J.; Arthur Williams, Harry C. Cushing, Jr., and Harvey Robinson, of New York City.

### Case to Build Commercial Cars.

Motor trucks are to be made by the Case Motor Car Co., of New Bremen, Ohio, which has been incorporated with \$50,000 capital. The company has secured the plant formerly occupied by the Grothaus-Laufersick Co., steel bridge makers. There are 35 local stockholders, the incorporateors of the company being J. H. and Edmund Grothaus, J. F. Laufersick, Otto J. Doesel and Louis Henke.

### United Motors Starts in Canada.

United Motors, Ltd., is a new Canadian company, capitalized at \$200,000, which is to manufacture cars in Welland, Ont. The company announces that it will be producing cars at its new factory by Christmas. The provisional directors are Frederick Sager, Detroit, Mich.; E. A. English, Toronto; W. L. Adams, Niagara Falls; L. C. Raymond, B. J. McCormick, Welland.

### Jackson Absorbs Fuller's Factory.

The Fuller Buggy Co.'s factory at Jackson, Mich., has been combined with that of the Jackson Automobile Co., and the Fuller company will retire as a separate competitor in the automobile market. Both companies are owned by the same interests, with H. A. Mathews managing each.

## LETS BANKERS GIVE THE ANSWER

**United States Motor Gets Information from 4,830 of Them Concerning Mortgages —Exploding a Bugaboo.**

Quite a deluge of refutation and vigorous denial that the public at large is mortgaging its homes and is heading toward bankruptcy by purchasing automobiles, was released when it became apparent that bond houses, small country bankers and certain other of the so-called "financial interests" were trying to put the motor car business in the light of a prosperity wrecker, but the most ambitious effort to obtain accurate information as to the facts appears to be that made by the United States Motor Co. in a canvass of 24,000 bankers, to whom blank forms were sent for them to furnish information as to the number of people in their vicinity who have mortgaged their homes or borrowed money to purchase automobiles. Replies now have been received from 4,830 bankers, relating to 198,216 automobiles in cities and towns, and the average discloses less than 4 per cent. of the machines as having been purchased with borrowed money and less than 1 per cent. bought by mortgage placing. The figures look like the last nails in the coffin of the alarmist propoganda.

In addition to asking about the borrowed money and the mortgages, President Benjamin Briscoe requested the bankers to indicate, as far as possible, the percentage of cars used for business or useful purposes, and whether or not, in the bankers' opinion, the sale of automobiles will increase in their respective territories. The answers and comments weigh favorably on the side of increased sales next year and a preponderance of useful service rather than mere pleasure driving.

The 4,830 bankers who have answered supply figures which show that of the 198,216 automobiles in their respective cities and towns, only 1,254 have been bought by



the placing of mortgages and only 7,475 by the borrowing of money without mortgage. In the opinion of 3,229 of the bankers the sale of automobiles will increase during 1911 over that of 1910, while 1,601 say that sales will not increase. The latter are bankers in the small towns and remote sections of the country, where exuberant optimism is rare.

Many of the letters dwell on the surprising extent to which so-called pleasure cars are used for business purposes by physicians, contractors, real estate men, farmers, business men and the bankers themselves. Strong commendations are given for the extent to which cars bring the farming sections in closer relation with the towns and cities.

"We have no sympathy with the talk that has been given out as to the extravagance of a large proportion of automobile purchasers and their duty to save money, or at any rate avoid the purchase of automobiles," says the president of one of the largest banking institutions in Chicago. "We believe if the same number of city and country people actually had mortgaged their properties, as alleged, and with the proceeds had bought securities which Wall street has for sale, that no suspicion of complaint would have been heard."

A predominating feature of the correspondence is the frankness and thoroughness with which the bankers made the investigation. Many of them personally talked with automobile dealers and garage men and with present and prospective owners, and the compilation indicates that there is every ground for the belief that the automobile industry is practically in its infancy and that the public is only just awakening to the great possibilities of the motor car, according to the compilers, supported by enthusiastic expressions to the same effect by the volunteer observers from the ranks.

#### Weed Grip Prices are Reduced.

In accordance with the announcement recently made by the Weed Chain Tire Grip Co., of New York City, that following its patent victories it would lower the prices on its chain tire grips, the prices have been reduced substantially, taking effect on the 1st of September. The reduction extends throughout the range of sizes, from the 28 by 2½ size, which has been lowered from \$5 per pair to \$3.50, to the 40 by 6 size, which is now \$15, as against the former price of \$17.

#### Russell to Build Trucks in Toledo.

Launching the E. C. Russell Co. with \$25,000 capitalization, Edward C. and Nicholas W. Russell, of Toledo, O., have commenced the manufacture of motor trucks in Toledo, O., in a factory at Lagrange street and the Michigan Central Belt. The company will make trucks of 22 horsepower, with a capacity of 1,500 to 2,000 pounds.

## CHANGES AMONG THE TRADESMEN

### Appointments and Resignations—Utz and O'Connor Leave Abbott—Heaslett Resigns from E-M-F.

Lewis A. Austin has resigned as secretary and assistant sales manager of the Autoparts Manufacturing Co., of Detroit, Mich., and after September 1 will be connected with the Western Motor Co., of Logansport and Marion, Ind. He will do considerable road work, making his headquarters at the Logansport plant. Fred. C. Neidermiller succeeds Lewis as secretary of the Autoparts company.

Don C. McCord has been made sales manager for Marion cars, with an office in factory No. 3 of the Willys-Overland Co., located at Indianapolis, Ind. His appointment marks a change in the management of the sales of the Marion car, which has been marketed by the regular Overland force. McCord for some time was the Overland factory representative on the Pacific Coast.

G. M. Berry and Jerry W. De Cou have been appointed assistant general managers of Thomas B. Jeffery & Co., of Kenosha, Wis., under Charles Jeffery, who continues as general manager. Berry is assistant general manager in charge of sales and office, while De Cou, formerly the purchasing agent, is assistant general manager in charge of the factory.

Frank H. Trego has been placed in charge of what the Hudson Motor Car Co., of Detroit, Mich., designates as its "service department." This department is newly created and aims to instruct dealers and owners how to maintain the efficiency of the cars after they have been sold.

John G. Utz and A. P. O'Connor have resigned from the Abbott Motor Co., of Detroit, Mich. The former was the designer and the latter the sales manager of the concern, which recently was bought by Warren (Pa.) oil men, and which makes the Abbott-Detroit car.

George D. Wilcox has been placed at the head of the sales department of the Regal Motor Car Co., Detroit, Mich., making his headquarters at the Detroit factory. He has been handling the agency for the Regal line in Syracuse, N. Y.

A. I. Dutton has resigned as publicity director of the Willys-Overland Co., of Toledo, Ohio. He is to become the sales manager of a Chicago concern.

James G. Heaslett has resigned as engineer of the E-M-F Co., of Detroit, Mich. His future plans are not as yet announced.

N. H. Minter has become sales manager

of the Vortex Vaporizer Carburetor Co., of Chicago, Ill. He recently was with the Eiseman Magneto Co., having previously been with the Factory Sales Corporation.

#### Twentieth Century Moving to Newark.

The Twentieth Century Manufacturing Co., of New York City, is moving from its factory at 19 Warren street, to a new factory at 416 to 422 Ogden street, Newark, N. J., where it will have almost six times its present space for the manufacture of lamps and accessories. The workmen and office force are to move to Newark and continue their present positions. Thomas M. Dunham, the sales manager of the company, has returned from a business trip to the Pacific Coast, and his estimate of conditions and of prospects for next year are such as to make the factory increase imperative.

#### Tennant Takes Marmon for Chicago.

Chicago representation for Marmon cars has been placed with Tennant Motors, Ltd., which shortly will announce the selection of a location on Michigan avenue, where it will handle the Marmon exclusively. The Tennant company formerly handled the Peerless, but sold the agency and its lease to the Peerless Motor Car Co., which now operates the business as a branch.

#### Has Car and Company; Wants Plant.

Opening offices in Detroit, Mich., where it will make its headquarters while it casts about for factory "propositions" from other towns, the Walker Motor Car Co. has been organized, with a capitalization of \$150,000, for the purpose of making the Walker "Six." C. M. Walker, of Walkerville, Ont., is named as the chief stockholder.

#### Firestone Re-Elects Its Officers.

The Firestone Tire & Rubber Co., of Akron, O., held its annual meeting on the 24th ult., retaining the old board of directors. The following officers were re-elected for the coming year: H. S. Firestone, president and general manager; Will Christy, vice-president; S. G. Carkhuff, secretary, and J. G. Robertson, treasurer.

#### Livingston Gets a Bigger Factory.

The Livingston Radiator & Manufacturing Co., of New York City, has moved from 312 West Fifty-second street to 146 West Fifty-second street. The change of factory location gives the company 15,000 square feet of floor space, and will multiply its manufacturing capacity about five times.

#### Goodrich to Build French Plant.

Extending its "invasion" of France, the B. F. Goodrich Co., of Akron, Ohio, which already has a Paris selling branch, shortly is to erect a tire factory in that country. It has bought a factory site near Paris for the purpose.

**SUES ON LAMPS WITH TAG HOLDER**

**Philadelphia Concern Alleges that Others Infringe a Controlling Patent—Action Against Five Defendants.**

In an endeavor to establish for itself a patent monopoly on the construction of combination oil tail lamps and number plate brackets, the Rose Manufacturing Co., of Philadelphia, Pa., has instituted suits against five firms, on the ground that the latter are infringing a patent granted to the Rose company on April 7, 1908, and claimed to cover combinations of this character. The suits are again the Cox Brass Manufacturing Co., Lowe Motor Supplies Co., Thomas Harper and the American Auto Supply Co. in the United States Circuit Court for the Southern District of New York, and against James L. Gibney & Bro., in the Eastern District of Pennsylvania.

An aggregate of damages exceeding \$65,000 is asked for in the suits. The plaintiff claims to have been manufacturing various forms of brackets in combination with tail lamps for several years, and that in addition to its present patents it has a number more pending, in relation to devices of the kind. A vigorous policy of prosecution against alleged infringers is announced.

**Premier Distributors at the Factory.**

Distributors of Premier cars gathered at the Premier Motor Manufacturing Co.'s factory in Indianapolis, Ind., last week for their second annual convention, the program including inspection of the 1911 models, lectures on the construction, on the sales and advertising situation, and on the prospects for the year, in addition to which there were luncheons, banquets, clam bakes and numerous social functions. The convention was presided over by President Harold O. Smith, and the mechanical features of the new cars were expounded by Vice-President George A. Weidely. One of the pleasant features of the week was the presentation of several handsome awards to men in the Premier organization, who have distinguished themselves in contests and in the factory work. Gold watches were given to Ray F. McNamara and Clifford Waltman, while Charles L. Ballinger received a diamond lion's head ring.

**Jewel to Reorganize on Bigger Basis.**

Reorganization steps are in progress for the Jewel Carriage Co., of Cincinnati, Ohio, which recently went into a receiver's hands, and the capital stock of the company is to be increased from \$250,000 to \$400,000. The company's difficulties, it is explained, arose chiefly from the delays in receiving materials. According to present plans, the receivership shortly will be raised and the

business resumed under the old management. The company is building and shipping cars, and is prepared to receive and cars for all orders. It seeks to correct any impression that it went into bankruptcy instead of receivership. The Ohio Motor Car Co., the subsidiary company through which the automobile business is handled, is not involved in the receivership, and is continuing without interruption in the marketing of Ohio cars, and in the supplying of repair parts. For the coming season the Ohio will be offered in a five passenger touring car, four passenger close coupled tonneau, five passenger torpedo and a roadster. The motor is to be increased from  $4\frac{1}{4}$  by  $4\frac{1}{4}$  to  $4\frac{1}{2}$  by  $4\frac{3}{4}$ , adding considerably to the power.

**Schurmeier Builds Plant for Trucks.**

The Schurmeier Motor Car Co., of St. Paul, Minn., which recently was organized for the manufacture of motor trucks, has purchased, for \$15,000, the land on the southwest corner of University avenue and Griggs street, on which it has completed a \$12,000 one-story brick factory. The concern will make three styles of truck, designed by B. Bailey. Its officers are H. I. Whitney, president; H. H. Bigelow, of Brown & Bigelow, vice-president; Eli S. Warner, of the McGill-Warner Co. and president of the St. Paul Commercial Club, secretary and treasurer.

**Croxton-Keeton Creditors to Meet.**

Creditors of the Croxton-Keeton Motor Co., of Canton, Ohio, have been called for a first meeting on September 10, by A. M. McCarty, the referee in bankruptcy. The meeting is scheduled for 9 a. m., in Rooms 9, 10, 11, Eagle block, Canton. Among other matters that will come up will be the application of the receiver to make a contract with the Keeton Securities Co. for the use of some of the latter's patents under royalty.

**Toplitz in Voluntary Bankruptcy.**

A petition in voluntary bankruptcy has been filed by Berthold L. Toplitz, dealer in automobiles, residing at 1229 Madison avenue, New York City. He gives his liabilities at \$16,952, with no assets. The debts were contracted between 1901 and 1910 and there are many judgments against him. He formerly was a partner in the firm of Holmes & Toplitz, which was dissolved last May, and he desires to be discharged from the debts of that firm, as well as his individual debts.

**Erects Mills for Spokes and Hubs.**

For the manufacture of automobile spokes and hubs, the Wildermuth Bending Co., of Columbus, Miss., is to erect three mills near that place at a cost of \$50,000. The company has purchased a 1,000 acres track thickly timbered with hickory.

**CAIRO LADIES LIKE LIMOUSINES**

**Dealer in American Cars Explains Peculiarities of Egyptian Trade—Urges More Liberal Manufacturers' Policy.**

Makers who are casting a considering eye on foreign cities in relation to marketing cars, perhaps can glean a little lesson in the necessity of knowing the peculiarities of demand, from the observations of M. G. Torossian, who after a technical education in the United States has embarked in the handling of American cars in Cairo, Egypt. With experience on both sides of the ocean, he is able to point the salient trade features of the automobile market in that country.

"In Egypt there still is a tendency to buy four cylinder cars de luxe with landaulet or limousine body," he says, "as the native Turkish ladies prefer to ride in closed cars. The cars must be luxurious and at the same time cheap. In Cairo there are about 625 cars in private use, and some 70 machines that are used in taximeter service. The former are nearly all landaulet or limousine types, while the taximeter vehicles are chiefly second-hand machines remodeled for the service.

"There are about 20 motor car agents in Cairo. Half the cars in the city are of French manufacture; a quarter are English, and the remaining quarter are a mixture of Italian, Belgian and American. As yet American cars have no reputation in Egypt, principally on account of a lack of competent agents. If the car manufacturers in the United States would be less independent and would encourage their foreign agents a little more, they could develop a good business in the East. In Egypt the trade is just in its infancy."

**Rubber Shares in Severe Slump.**

Speculators in rubber shares have received a shock in the effects in the London market of the annual report of the Malacca Rubber Co., which has passed its expected dividend and which has slumped from \$90 to \$35 per share. The company was regarded as one of the strongest and best, and its unfavorable showing has caused a depression in most of the other rubber shares. Among other disquieting features of the report was the statement that a large proportion of the trees had to be "rested," reducing the output below the estimates.

**Whitney Intends Low Price Cars.**

Friction driven roadsters with two cylinder engines, to sell for \$400, are the proposed product of the Whitney Motor Car Co., which has been incorporated in Detroit, Mich., with \$150,000 capital. A first lot of 12 demonstrators is being put through.

**The Week's Incorporations.**

Uniontown, Pa.—Automobile Rental Co., under Pennsylvania laws, with \$5,000 capital; to operate a garage and renting service.

Sewickley, Pa.—Anderson Automobile Co., under Pennsylvania laws, with \$20,000 capital; to do general automobile business.

Oak Park, Ill.—South Boulevard Garage Co., under Illinois laws, with \$2,500 capital; to maintain a garage. Corporators—A. V. Horn, F. Hazell, G. A. Ellingson.

Jackson, Tenn.—Jackson Garage Co., under Tennessee laws, with \$10,000 capital; to do a general automobile business. Corporators—J. A. Pope, S. M. Spiller.

Pittsburg, Pa.—National Automobile Co., under Pennsylvania laws, with \$100,000 capital; to do general automobile business. Corporators—M. J. Caton and others.

Denver, Colo.—Colorado Auto Oil Co., under Colorado laws, with \$500,000 capital; to manufacture and refine automobile oils. Corporators—H. O. Andrews, L. B. Stevens.

Chicago, Ill.—Theo. Bass-Kingsland Co., under Illinois laws, with \$15,000 capital; to deal in automobiles and accessories. Corporators—Theo. Bass, R. M. Kingsland, W. L. Phillips.

Troy, N. Y.—Wilson Automobile Co., under New York laws, with \$10,000 capital; to deal in automobiles and motor vehicles. Corporators—V. D. Wilson, F. H. Deal, A. M. Powers.

Le Roy, N. Y.—Le Roy Motor Co., under New York laws, with \$3,500 capital; to deal in agricultural implements and automobiles. Corporators—T. W. Larkin, E. C. Eberhart, A. T. McCowan.

Cincinnati, Ohio—American Auto Sales Co., under Ohio laws, with \$50,000 capital; to do general automobile business. Corporators—G. H. Cauniff, J. K. Corwin, E. R. Kinney, W. W. Welch.

Greeley, Colo.—Weld County Automobile Co., under Colorado laws, with \$40,000 capital; to deal in automobiles and maintain a garage. Corporators—D. R. McArthur, Geo. P. Strubel, Chas. Davis.

Birmingham, Ala.—Smith Motor Car Co., under Alabama laws, with \$12,500 capital; to do a general automobile, bicycle and motorcycle business. Corporators—C. S. Sibley, S. L. Smith, J. B. Garber.

Syracuse, N. Y.—J. H. Valentine Co., under New York laws, with \$20,000 capital; to manufacture and deal in motors, engines, machinery, etc. Corporators—J. H. Valentine, J. F. Sanchez, C. G. Hanna.

Indianapolis, Ind.—Washington Auto Co., under Indiana laws, with \$10,000 capital; to manufacture, repair, rent and deal in automobiles. Corporators—A. M. New, F. H. Bruhn, J. N. Contler, F. J. Wallace.

Bradford, Vt.—Bradford Automobile Garage, under Vermont laws, with \$10,000 capital; to do general automobile business and repair work. Corporators—H. E. Parker,

W. S. Davis, H. W. Eaton, W. P. Williams, M. A. Gale.

Oklahoma City, Okla.—McCoole-Mercer Motor Co., under Oklahoma laws, with \$10,000 capital; to manufacture and deal in automobiles, engines, etc. Corporators—M. F. McCoole, B. B. Mercer, M. L. Mercer.

Chicago, Ill.—Logan Square Automobile Co., under Illinois laws, with \$50,000 capital; to maintain an agency and storehouse for automobiles. Corporators—Frank Ginner, George N. Harmon, C. F. Moremac.

New York City, N. Y.—Seymour Auto Supply Co., under New York laws, with \$50,000 capital; to manufacture devices and supplies for automobiles. Corporators—P. C. Brashear, Seymour Suits, H. J. Howland.

Cincinnati, Ohio—Staver Motor Car Co., under Ohio laws, with \$25,000 capital; to do general automobile business. Corporators—L. K. Emerson, G. W. Platt, R. L. Dollings, P. K. Gale, S. M. Adams, A. L. Parker.

Westbrook, N. Y.—Westbrook Garage & Machine Co., under New York laws, with \$10,000 capital; to own, lease, buy, sell and manufacture automobiles and all kinds of vehicles. Corporators—J. T. Skillins, A. Spiers, W. Lyons.

Castleton, N. Y.—Belmont Motor Vehicle Co., under New York laws, with \$25,000 capital; to manufacture, sell and repair motors, engines, vehicles and carriages. Corporators—H. H. B. Ingalls, A. C. Cheney, O. D. Woodford.

Niagara Falls, Ont.—United Motors, Ltd., under Canadian laws, with \$200,000 capital; to manufacture automobiles in Welland. Corporators—Fred Sager, of Detroit; E. A. English, W. L. Adams, L. C. Raymond, B. J. McCormick.

New York City, N. Y.—Geiszler Starting Device Co., under New York laws, with \$50,000 capital; to manufacture starting devices for gas engines, manufacture and deal in appliances and supplies for gas engines, etc. Corporators—M. Geiszler, J. Geiszler, R. H. Muntz.

**Increases of Capital.**

Chicago, Ill.—Peerless Tire Co. increases capital from \$2,000 to \$250,000.

Jeffersonville, Ind.—Bauer Machine Co. increases capital from \$15,000 to \$45,000.

Charleston, S. C.—Automobile & Marine Motor Co. increases capital from \$7,000 to \$15,000.

**Cycloid to Start in Minneapolis.**

Minneapolis, Minn., has promise of an automobile factory as the result of the formation of the Cycloid Mfg. Co. in that city, with an incorporated capital of \$600,000. A. Paegel, W. P. Cockey and C. O. Furbush are the incorporators and they say that the company on October 15th will commence the manufacture of passenger cars and trucks.

**Factory Branches Established.**

The Goodyear Tire & Rubber Co., of Akron, Ohio, is to open a branch in Toledo, Ohio. It will be located at 909 Jefferson avenue.

The Anderson Carriage Co., Detroit, Mich., has opened a branch in Cleveland, Ohio, at 10550 Euclid avenue. G. H. Rempes is the manager.

Cramped for lack of space in its old quarters the Philadelphia branch of the Consolidated Rubber Tire Co. has been moved to 208 North Broad street. H. Kissell is the manager of the Quaker City branch.

With L. W. Place as manager, and A. S. Watson as his assistant, the new factory branch of the Olds Motor Works in Atlanta, Ga., has been opened for business. The branch will be under supervision of the Trenton district headquarters.

Norman P. Druck, of Trenton, N. J., has been appointed manager of the new Stoddard-Dayton branch to be established in Philadelphia, Pa. The salesroom and garage of the agency is located at 237 North Broad street, and will be ready for occupancy October 1.

The C. F. Splitdorf Co., of New York City, has opened a branch in Los Angeles, Cal., on South Olive street, in the heart of the automobile district. The branch will be in charge of Perry Graves, who has been connected with the San Francisco office of the company.

The Regal Motor Car Co., of Detroit, Mich., has opened a branch in Cleveland, Ohio, at 1926 Euclid avenue. The branch will be in charge of Frank L. Pierce, who for seven years was sales manager of the Gaeth Motor Car Co., of Cleveland, manufacturers of the Gaeth car.

The Regal Motor Car Co., of Detroit, Mich., announces the establishment of direct factory branches in fourteen cities, in addition to that maintained in Detroit. The list includes Buffalo, Boston, New York, Philadelphia, Kansas City, Wichita, Oklahoma City, Chicago, Denver, Minneapolis, Indianapolis, San Francisco, Toledo, Lincoln and Toronto. The branches not only have ample stocks of Regal cars and parts, but mechanics with thorough factory training have charge of the repair department at each.

The Inter-State Automobile Co., of Muncie, Ind., has opened a branch in Boston, Mass., at 153 Massachusetts avenue, with Virgil A. Charles as district manager. A full stock of cars and repair parts is carried. Heretofore the Boston representation for Inter-State cars has been through an agency arrangement with the S. M. Supplies Co. The latter, however, has decided to close its Boston branch, relinquishing the Inter-State and the Brush runabout agencies. Charles was manager of the S. M. company's automobile department in Boston.

## IN THE RETAIL WORLD.

The Speedwell agency for Portland, Ore., has been transferred to the new garage at 266 Eleventh street. It was formerly located at 533 Alder street.

E. H. Lapham, of New Canaan, Conn., is building a new garage at Talmadge Hill in his home town. The structure is of field stone, practically fireproof, and costs about \$10,000.

The location of the Stearns agency in Seattle, Wash., has been moved to the corner of Broadway and Madison streets. It formerly was located at the corner of Fifth and University streets.

Edwin J. York and Herman K. Parshley, both of Dover, N. H., have purchased the property owned by Jasper H. Randlett on Hanson street. They will erect thereon a garage and repair shop.

Work has been started on the new building for Apperson and Regal cars in H street, near Fifteenth street, Washington, D. C. The structure will be ready for occupancy about November 1.

Julius Debits, former secretary of the late John Hemwall Automobile Co., of Chicago, Ill., has purchased the Overland garage at Fortieth avenue and Washington boulevard. He will feature Overland cars.

The G. H. Proctor Supply Co., of 25 Irvington street, Boston, Mass., has been appointed agent for the Pullman line of cars. Besides Pullman cars, the company will handle a full line of supplies and accessories.

R. S. Mattoon, a member of the contest committee of the Chicago Automobile Club, has been appointed manager of the Chicago branch of the Lexington Motor Co. The offices of the concern are at 1330 Michigan avenue.

Under the style New Jersey Overland Co., a new concern has been formed in Newark, N. J., to distribute Overland cars. The company will occupy the premises of the Essex County Overland Co., at 211 and 213 Halsey street.

Frank Roach, Charles Stabler, and Peter Lackner have formed a partnership and opened a garage and repair shop at 1070 East Fifty-ninth street, Cleveland, Ohio. They will operate under the style the R. S. L. Auto Repair Co.

Gawthrop & Wister, Elmore agents for Philadelphia, Pa., have moved into their new building at 242 North Broad street. The structure is 78 by 200 feet, two stories high, of concrete construction. Their former quarters were at 223 and 225 North Sixteenth street.

The firm of H. C. & C. D. Castle, of Boston, Mass., has been merged into the Lozier Sales Co., which will handle the Lozier cars in the Eastern half of Massachusetts. H. C. Castle, of the old firm, is president of the new Lozier Sales Co.; E. H. Ellison and

W. Prescott are the other members of the concern.

W. S. Grady, of Lowell, Mass., has been appointed agent for Regal cars for Lowell, Lawrence and the surrounding towns. He will carry a full line of accessories and supplies in his salesroom, which is located at the corner of Bridge and Paige streets in Merrimac square.

Two new garages just have been opened in Windsor, Mich., a suburb of Detroit. One is owned by Clyde Curry and Walter Pabst, while the other is under the management of Hamilton Trumble, one of the aldermen of the town. Both buildings house the garage proper on the ground floor, while the other two floors are used as flats.

Owing to greatly increased business, the Bruce-Cubbins Automobile Co., Memphis, Tenn., has transferred its offices and salesrooms to 20-24 South Fourth street while the repair and garage department remains at the old location, 287 Monroe avenue, where it occupies the entire building. The sales and demonstrating cars will be stored at the Fourth street place.

Styled the Crescent Motor Co., a new company has been organized at Fond du Lac, Wis., for the purpose of opening a garage. The structure which is being built for them is 58 x 85 feet, with an annex for repair work 24 x 60 feet, and is located on North Main street, opposite the Coliseum. W. C. Reinig, W. A. Meiklejohn and F. G. Hurlbut compose the new concern.

Two mysterious fires occurred in Philadelphia last week, when the salesrooms of Ralston & Childs, dealers in automobile supplies, at 1312 Vine street, were damaged to the extent of \$1,500. One fire started at 9:05 P. M., the other following about six hours later, at 3:40 A. M. Defective electric wiring is given as the cause, but the fire marshal is investigating the matter.

The new garage and salesroom which C. A. Coey is building on Michigan avenue, Chicago, Ill., is said to be the first automobile garage to be equipped with a landing station for aeroplanes on the roof. McFarlan cars are shown on the ground floor, in connection with his taxicab station, while the upper floors are to house automobile and aeroplane accessories and supplies.

Six stories high, absolutely fireproof, of red brick and Indiana limestone, the new headquarters of the Peerless Motor Co. at Boston, Mass., present a highly artistic outward appearance. The structure which occupies the corner plot at Beacon street, Brookline and Commonwealth avenues, is 90 x 105 feet, with a private side street 30 feet wide in the rear. John L. Snow is the manager.

The new building recently completed at 12th and Harrison streets, Oakland, Cal., will house four concerns prominent in the

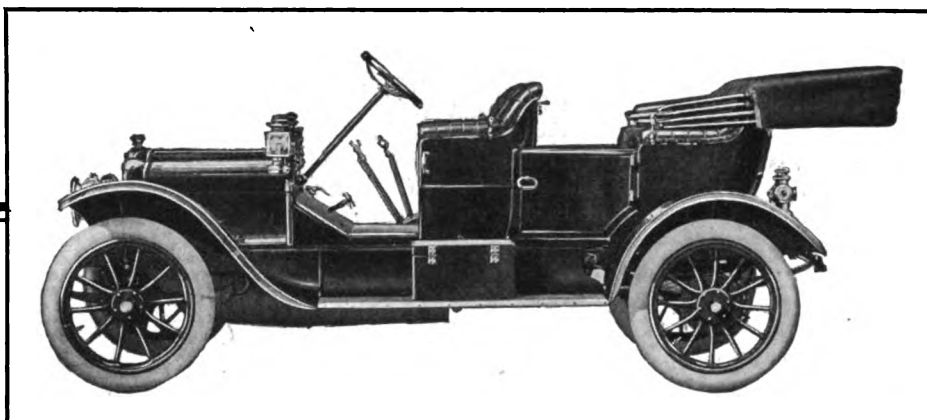
automobile business. They are: The Pioneer Automobile Co., which handles Thomas, Lozier, Chalmers-Detroit, Hudson, Babcock electrics and Wilcox trucks; the Central Motor Car Co., distributors of Knox and Buick cars; the Consolidated Motor Car Co., handling the Pope-Hartford line, and the Fleming & Tebbetts Co., agents for Morgan & Wright tires.

George Ehret, owner of the property extending from Fifty-eighth street to Fifty-ninth street on the east side of Broadway, is building a monster garage thereon. The building will cover the whole 33,000 square feet area with the exception of a space in the center, 40 by 100 feet, which will be used as a court. A unique feature of this garage is the construction of the roof, which is designed to carry large, heavy electric signs, the supporting columns being carried through the roof for this purpose.

New agencies have been established by the Henderson Motor Sales Co., of Indianapolis, Ind., distributors for Cole "30" cars, in three widely separated cities. At 4127 Olive street, St. Louis, Mo., the A. A. Franklin Co. will act as distributor for the state of Missouri; at 152 North Broad street, Philadelphia, Pa., the Franklin Motor Car Co. will look after the needs of the city of Philadelphia and the vicinity, while at 210 South Sixth street, Minneapolis, Minn., the Haynes Automobile Co. intends to feature the Cole "30," covering the States of Minnesota, and North and South Dakota.

Capitol avenue, Indianapolis, Ind., soon will be a regular "automobile row," as a number of firms are preparing to establish their salesrooms and garages on that thoroughfare. Frank P. Fox & Co., agents for Pope-Hartford gasoline and Rauch & Lang electric cars, have opened up at No. 510. Cadillac cars will be shown at 504, while the Haywood Tire & Equipment Co. will occupy No. 518. In a near-by building is located the Glick Auto College, while the Cole cars are to be shown at the corner of Capitol avenue and Verfont street. Just across the street is the headquarters of the Moon Automobile Co. The Buick company already is installed in North street, just west of Capitol avenue.

Heralded as the largest and finest garage in the South, the building erected for the Fairchild Motor Car Co. at the corner of St. Charles and Girod streets, New Orleans, La., was opened to the public on August 8th. The structure is 120 x 160 feet, with elaborate entrances on two streets, two stories high, of brick and concrete. Individual lockers of generous size and commodious baths are provided for the individual use of patrons, and a complete repair department for gasoline and electric cars is maintained in the annex. The lines represented by the Fairchild company include the Peerless and Reo gasoline cars, Rauch & Lang electrics and Rapid trucks.



## The Long-Stroke Engine—An Explanation

**T**HE long stroke engine must economize in the use of gasoline, and we will try to make it plain—very plain—just why. You know whether you would prefer to fill a gallon crock or a quart measure (if you had to pay for it). The gallon crock is the large-bore, short-stroke motor—the tall quart measure represents the medium bore, with the long stroke—both must be filled with gasoline in automobile work.

Of course the gallon crock has a greater capacity than the quart measure, but the greater capacity does not produce proportionately greater power. For example, you know that your revolver will not shoot so far nor penetrate so deeply as your rifle, using the same cartridge. In firearms we call it the length of barrel, and explain it by saying, we get the benefit of the whole expansion of the gas. In automobiles it is the same thing, but we call it the length of stroke. In a rifle we get results because there is but one direction for the gas to expand—the length of the barrel—in automobiles, if there is but one direction in which to expand, and that dimension is sufficiently long, we get the full power.

## White Motors Economical

The above tells the whole story of the remarkable performance of White gasoline cars and trucks, from a standpoint both in power and fuel consumption.

The four cylinders of the White motor are more nearly rifle-barrels than any others, consequently less explosive medium is required to produce the high-power rifle results. One other advantage follows: because White motors are not large and unwieldy, White cars are of moderate size and weight, consequently go over the roads more easily and are easier upon the tires and other items of maintenance.

Catalogues, testimonials and other literature gladly sent upon request.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

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### Enterprise and Its Mental Peril.

In the search for "sound business principles" and true commercial wisdom, it now has become quite the thing in certain strata of the automobile industry to affect almost a chilling degree of conservatism of the sort that slows creative effort either in designing, manufacturing or sales methods. The spirit of the idea is that the industry has indulged in many foolish capers in the past and has been guilty of vanities and extravagances of method that well could be forgotten, and that the business in the future should be reduced to the humdrum terms of the staple lines, without the "splurges" and sensationalism that have been features of its progress.

This conservatism is in a degree a healthy offset and check to that beautiful and abounding optimism in which men have rushed their riotous way in the industry to fortune or to ruin according to circumstance and the intrinsic value of their basic

propositions. It also is in a measure timely in relation to the arrival of the inevitable "shake-down" periods, when even the strongest must feel some strain while the weaklings are being eliminated through stress of conditions.

Contempt is quite as well deserved for the exaggerated optimist who is blind to danger as for the pessimist who is blind to opportunity, even though the former is the more pleasant in human contact. But it is possible that in the contemplation of past errors and a discernment of adverse conditions in the future a degree of "conservatism" may be reached that is paralytic in its effects rather than merely wise in caution.

Everything that can be said in condemnation of the follies that have been exhibited in the past is true, but the form and magnitude in which the industry at present thrives is evidence enough that in the main the activities have been along the right lines. The initiative, the enterprise, the energy and the creative ability of the automobile industry have brought it to the size and prosperity which it now enjoys, and its swing and movement is such that no one can hold place in it by arresting development effort and, figuratively, casting anchor.

For those who would idealize the seemingly settled and unadventurous conditions that obtain in some of the old lines of manufacturing and merchandising, it is not amiss to point out that almost without exception such industries are awakening to the necessity for self-bestirring and for an emulation of the younger and more progressive manufacturers in point of enterprise both as to making and marketing. In fact they are becoming aroused to the need for casting off the very kind of conservatism that some minds in the automobile industries are tempted to regard as representative of solid business virtue.

Coming directly to the concrete application, it does not seem to be the part of modern business sagacity to permit the conservative spirit to become a deadener of enterprise. Improvements, new designs, sound extensions of selling arrangements, projects for finding new markets, advertising campaign plans, labor and time saving economies, advanced accounting systems and the myriad of new ideas and proposals that are brought forward cannot be waved aside or dismissed with a scant hearing on the ground that wise conservatism

should leave such things to rash experimenters and industrial gamblers. True conservatism must take an entirely different form. A standstill policy is not conservatism. It is pessimism, laziness and commercial decay.

### Intent of the Service Department.

Well established automobile manufacturers in many instances are taking great pains with the organization of service departments and find the investment a profitable one. This phase of the industry, just now, is assuming the proportions of a trend and one that is calculated to be by no means of minor importance in its effect upon the business of the future. It is a movement not only to preserve the allegiance of customers, but to prolong the lives of their cars, and the effect upon the market is not far to seek.

Time was when it was the desire of many makers to sell new cars to as many owners of previous models as they could. In more than one present instance the frequent trading in of cars, merely for the sake of acquiring new models, is discouraged. The indirect intention is to reduce the number of machines of that particular make that are offered for sale in the second-hand markets. The newly created service departments are a strong factor in this effort.

With many makes of car, annual changes in the mechanism have been reduced to an almost negligible quantity. Hence, by replacing the original body with a new one, a car of one or two years' service becomes practically as good as new after it has undergone the careful treatment which the service department is prepared to give. The result is that the motorist who has ample confidence in the integrity of the builder of his car is quite as well satisfied as though he had a brand new machine. The manufacturer may be considered as in a more advantageous position than if he had traded in the same car for a new one, put the same amount of work on it and then offered it for sale as a second-hand proposition. Besides retaining the unquestioned confidence of his customer, he may be regarded as having a new car to sell instead of an old one; and from the selling point of view he is, therefore, that much better off.

The general intent of the service department, as contrasted with the mere repair shop, is that it represents an effort on the part of the manufacturer to ensure satis-

faction to the users of his product, and guarantees them impartial results in handling maintenance and repair work. But in the obvious sense, as well as in the indirect object which appeals to a few of the makers, the movement is one of deepest significance to the industry. It reveals a disposition on the part of the automobile builders to assist the motorist in prolonging the life of his car and in reducing the expense of motoring in general. Superficially this looks like an attempt to stifle the demand for new cars. But there can be no question of the breadth and usefulness of the motive.

#### Owners as the Greater Offenders.

There is some prospect that the much-maligned chauffeur may come into his own after all. Critical observation of the roll of recent accidents throughout the country reveals the fact that an increasing proportion of them occur when the owner is at the wheel and not his hired man. Formerly it was the paid driver that was held responsible for about all the evil motor cars could do on the highway.

The fact of the matter is that "chauffeur-ing" is becoming a settled mode of industry; that, irrespective of questions of organization or the assumption of a position in the general cause of labor, the trade of motor car driver is taking on some of the dignity that pertains to any other trade. There are some things the average experienced chauffeur will not do, and one of them is to take needless chances on the road.

The motorist himself, on the other hand, if he happens to be desperately inclined, is restrained by no professional compunctions. Therefore, with just the right combination of circumstances, he may become as much a menace to other users of the road as the chauffeur of a few years ago undoubtedly was. With many owners of high-powered cars, the sensation of driving still is enough of a novelty to be more or less intoxicating.

In the main, of course, it makes little difference as to the individual status of the person who is responsible for a serious accident. There are certain types of man who always may be depended upon to become reckless of consequences and defiant of the law, but it is something to know that the competition resulting from the great number of men now seeking their living by handling automobiles, and the ethics of the

### COMING EVENTS

September 3, Philadelphia, Pa.—Quaker City Motor Club's sociability run to Ocean City, N. J.

September 3 and 5, New York City—Robertson-Oldfield meet at Brighton Beach. Dan J. Smith, promoter.

September 3 and 5, Indianapolis, Ind.—Grand Circuit meeting on Motor Speedway.

September 3-10, Denver, Col.—Automobile show at Overland Park.

September 5, Denver, Col.—Denver Motor Club's 200 miles road race.

September 5-6, Omaha, Neb.—Omaha Motor Club race meet.

September 5-10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 7-10, Lyons, N. Y.—Wayne County Agricultural Society automobile races.

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 10-12, New York City—Motor Contest Association's Catskill tour and hill climb.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 16, Algonquin, Ill.—Chicago Motor Club's fifth annual hill climb.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18-20, Elmira, N. Y.—Automobile races at Tompkins county fair.

September 20, Omaha, Neb.—Inaugural meet on Omaha Motor Speedway.

September 20-22, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 21, Atlanta, Ga.—Atlanta Automobile Association meet on speedway.

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 26-29, St. Louis, Mo.—Third annual national good roads convention.

September 30-October 4, Minneapolis, Minn.—Minneapolis "Tribune" reliability run to Aberdeen, S. D., and return.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Springfield, Ill.—Automobile races at state fair grounds.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, St. Louis, Mo.—American Road Builders' Association's third national good roads convention.

October 7-8, Indianapolis, Ind.—Closing meet on Indianapolis Motor Speedway.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 20-22, Atlanta, Ga.—Atlanta Automobile Association's meet at motor-drome.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

calling gradually are dissolving the cloud that at one time overshadowed all who sought this method of earning their daily bread.

New York City hotels report an extraordinary amount of business this summer from automobile touring parties, and it is believed that August will prove the most profitable month in that respect ever known. This seems the more remarkable for the reason that business of this character

usually has been supposed to fall almost entirely into the hands of the provincial hotel man. But it is evident that there is now a fully established system of motor touring tides, flowing to and from the distant seashore and mountain resorts, and that as touring facilities improve and the confidence of motorists in the car as a reliable vehicle of transportation increases, the tendency to make New York a general center for these movements is growing apace.

# ELGIN YIELDS WEST'S BEST RACING

**Mulford Captures the Elgin National Trophy—Livingstone, Buck and Hearne Win the Illinois, the Kane and the Fox River Trophy Contests, Respectively—Two Days of Speed Battles Under Smiling Skies but Over Rough Course—Great Crowds Attend, Yet Not a Spectator Hurt.**

A new era in the annals of Western automobile road racing dawned last week with the staging of the 1910 national stock chassis races at Elgin, Ill., on Friday and Saturday, 26th and 27th ult., by the Chicago

imported by the National Motor Vehicle Co. for the occasion, achieved second honors by his notable performance. Livingstone, who was comparatively unknown outside of his native haunts, drove a magnifi-

in 3:04:45.79, while Adolph Monsen, Marion, who ran second, required 3:07:52.65. The house of Marmon scored again when their other representative, Heinemann, tucked third place in his blouse. Four of the seven



VIEW OF THE GRANDSTAND AT ELGIN JUST BELOW THE STARTING LINE

Motor Club. They represented the culmination of months of hard work to give Westerners a seance of speed that would compare favorably with the Vanderbilt, the standard by which all American road races are judged, and the effort was highly successful. Never before has the middle West witnessed such stirring speed battles on the road and such masterful driving displayed by the cream of American drivers, who girdled the eight and one-half miles circuit on the outskirts of Elgin on Friday and Saturday last.

Best known for his work in 24 hour track contests, Ralph Mulford, the star of the Lozier forces, who has not started in a road event since the 1908 Fairmount Park classic, signalized his return to road racing by driving one of the 1911 four cylinder 46 horse power Loziers to victory in the 305 miles Elgin National Trophy race on Saturday. Mulford, who drove the most brilliant race of his career, completed the 36 circuits in 4:52:29.84, an average of 62.5 miles an hour—the highest average which the carnival produced. Albert Livingstone, a California speed artist, who was

cent race and gave Mulford a close run for the trophy.

Emulating the Vanderbilt, the curtain raiser on Friday was of the merry-go-round order, and combined three races in one; the Illinois at 203.35 miles, the Kane County, which was billed at 169.46 miles, and the baby race, the Fox River, which was set at 135.57 miles. Livingstone in the National was the bright particular star of the day, winning the Illinois in a dashing and spectacular drive in 3:21:08.53, an average of 60.6 miles an hour, which betters his average in the Elgin by 4-10 of a mile per hour. Second place went to a veritable dark horse, Pearce, in the Falcar, who scored another for the Windy town. Less than three minutes after Pearce crossed the finish line, Dawson, the Marmon find, came hurtling from the stretch on his final round, and third place was his.

Dave Buck, the new addition to the Marmon team, showed his mettle by capturing the Kane County race for the Indianapolis concern. Buck streaked off the 20 circuits which was the task set for that class, at the rate of 55 miles an hour. He did the jog

starters had finished when the race was called.

American cars, which up to this time had had things their own way, received a temporary set-back in the Fox River race, when E. A. Hearne, a former Chicago amateur, who now is in the trade, drove a German Benz, the only foreign entrant, to victory. He tolled off the 16 laps in 2:30:40, scoring an easy and decisive win. A. W. Miller, Warren-Detroit, and G. Monckmeier, Staver, both of whom shied their castor in the ring for the first time, finished second and third. Hearne's average was 53.6 miles an hour.

By a peculiar coincidence the winner of each of the four events of the meet also made the fastest lap of the race, while Livingstone in the National topped the performances of all the others, with a record lap in 7:52 in the Illinois on Friday. Next came Mulford, who clipped off a circuit in 7:54 in the Elgin. As was natural with the increasing horse powers, the average speeds mounted with each race, beginning with 53.6 in the Fox River and culminating with 62.5 in the Elgin National. Buck in the Marmon

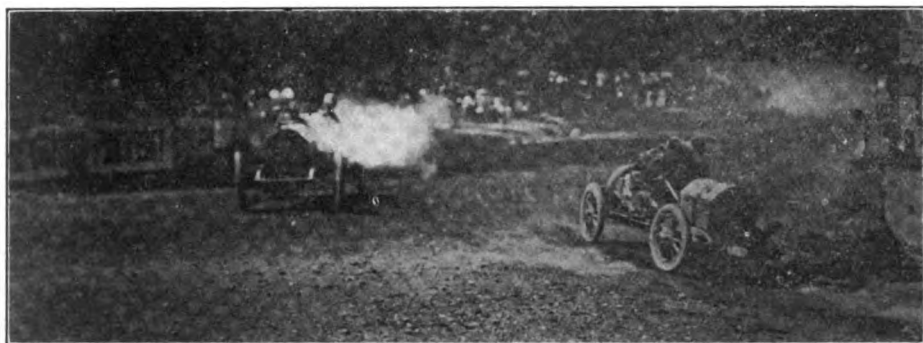
scored the record lap in the Kane County, with a trip around in 8:21, while Hearne and the Benz captured the lap honors in the Fox River by melting off the  $8\frac{1}{2}$  miles ribbon in 9:10.

With one exception, the class winners scored again in the matter of consistent running. Hearne was the stellar performer with a total variation of but 41 seconds, Livingstone came next with 1:33, and Mulford's fluctuation amounted to 1:52. Mon-

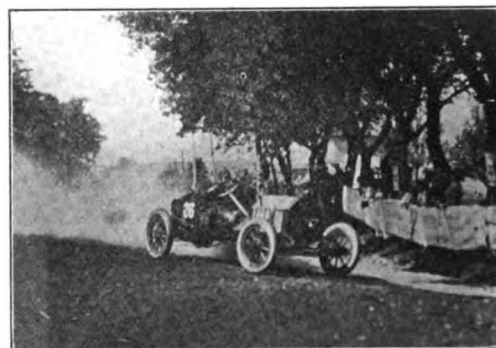
for the men with the bayonets and there were few who attempted to cross the "dead line." The wire fence erected on both sides of the course also proved very efficacious in keeping the crowds back. That not a single spectator was injured attests to the ability with which the guardians of the course performed their duties.

Although the races did not start until 10 o'clock on Friday morning the scenes on the course the night before were similar to

were erected, while parking spaces were sold on the roads bordering the course. The grandstand, which the club by a good stroke of business acumen secured at a small cost after it had been used for the review of the recent Knights Templar parade in Chicago, brought in a good sum. It had a capacity of 4,500, while the bleachers, with a seating capacity of 20,000, were parceled out at 50 cents a seat, and also brought good returns.



ENDICOTT LEADING SCHILLO AROUND THE TURN



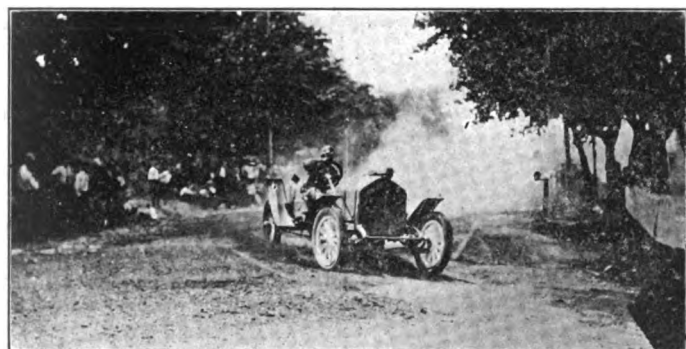
BUCK AT THE "LAST CORNER"

sen, who ran second in the Kane County, took the consistency honors in that decision, and kept within a margin of 3:29. Considering the difference between the Vanderbilt and Elgin courses the results attained on the latter were excellent. In the Elgin National, Mulford came within 4-10 of a mile an hour of equalling the last Vanderbilt average.

Always an interesting question, the tire honors went to Michelin by an overwhelming majority. They were the equipment on the first three cars in the Elgin Na-

tional, Illinois and Kane County events, and also were fitted to the Warren-Detroit, which ran second in the Fox River. Firestone tires were fitted to the winning Benz and to the Staver, which took third, in the Fox River.

Elgin on Thursday night presented a real metropolitan appearance with thousands of people and hundreds of cars scurrying through its streets throughout the night. The speed laws were smashed to smithereens, but no serious accidents occurred.



LIVINGSTONE MAKING LAST TURN ON COURSE



LIVINGSTONE ON THE "HAIR PIN"

Almost eight and one-half miles in circumference, the wedge shaped course was perfectly patrolled by 200 members of the Fifth Regiment, I. N. G., assisted by a detail of 200 specially sworn deputy sheriffs and a detachment of 50 special officers. Those who were not awed by the knights of the club showed a wholesome respect

In order to help defray expenses the club introduced an innovation in the management of road races by charging a modest fee to every person who witnessed the contest. All property bordering on the course was temporarily commandeered by the club under an arrangement with the owners. In many of the farmers' yards grandstands

Along the course the usual army of fakers and card sharps were camped with their stands in full blast. They were not molested, for the reason that they were outside the city limits and no serious complaints were made. Sandwich men shouted their wares lustily, as did the purveyors of other edibles and novelties, until the din resembled a babel of voices. Embracing the opportunity to add a few dollars to their bank account, several farmers took out government licenses and supplied the thirsts of the populace despite the protests of the prohibition element.



### Three Races at Once on the Opening Day

Eastern race managers well might take a lesson or two from the Chicagoans in the matter of punctuality. Friday's program went off according to schedule from the very crack of the gun at 10 o'clock sharp, and this despite the complication incident

first of the Kane County delegation, Matson in the Corbin got the word. He was followed a half minute later by Schillo, Overland; Heinemann, Marmon; Monsen, Marion; Schoeneck, Kisselkar; Buck, Marmon, and Fritzschke, Cino.

to be soon lost to sight. After a brief wait the megaphones called "Car coming" the crowd strained for a view up the course and the roar of a motor was heard, growing louder as a car burst into view. Leaping and bounding along it hurtled down the stretch and the cry went up "It's Livingstone!" The National flier, first over the line, still retained his lead and presently was lost to sight in the distance. His time was 8 minutes 14 seconds for the round.

Half an hour after Fritzschke had left, the Fox River contingent were sent away from in front of the pits, the road being kept clear for the cars already running. The little fellows left in this order: Cheney, Staver; W. Endicott, Cole; Crane, Staver; Hearne, Benz; Monckmeier, Staver, and Miller, Warren-Detroit. This arrangement was devised to bring as many cars as possible into the tail end of the race and sustain interest, and it worked out well.

Greiner's National was the second of the big cars to complete the initial lap, and then came Gelnaw in the Falcar, who had moved up one notch in the round. Ireland, Midland, came around fourth, registering 9:15 for the lap, followed by Endicott in the Kisselkar. The belated Pearce arrived next, having had ignition trouble when barely out of sight of the stands, which cost several precious minutes. After Drach in the Lexington had passed there was a long wait

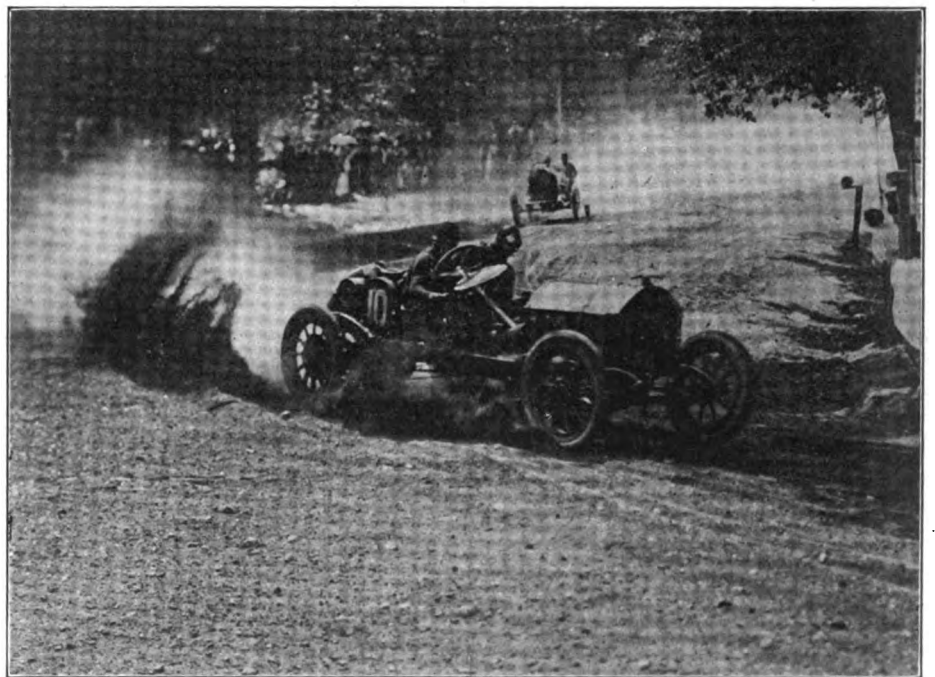


LIVINGSTONE'S NATIONAL, IN A CRITICAL MANOEUVRE

to arranging for the successive starts of three simultaneous races. The 21 cars were lined up in pairs, Livingstone, the National pilot, at the head of the Illinois competitors. The entrants in the Kane County and Fox River races were ranged behind. The cars were dispatched at 30 second intervals.

At 9:59 the warning flag was waved and immediately 21 engines commenced to vomit smoke and flames as they awaited to be released from the leash. Although there had been 23 nominations for the first day, the two Ford entries upon being weighed on the previous day were found way below weight and were disqualified by the technical committee. The Ford people immediately entered a protest, but Referee Beecroft upheld the committee's ruling.

Livingstone came to the line with his engine rumbling rhythmically. The crowd was tense with that expectancy that lends such interest to the early moments of a race. Starter Fred Wagner commenced to toll off the seconds: "Ten, nine, eight, . . . three, two, one—Go!" and with a slap on the back, Livingstone was bounding down the road. Pearce in the Falcar followed Livingstone in 30 seconds, and then came Endicott, Kisselkar; Gelnaw, Falcar; Ireland, Midland; Dawson, Marmon; Greiner, National; and Drach, Lexington, the last of the Illinois contenders. Hardly had Drach started splitting the atmosphere, when the



BILLOWS OF DUST RISING FROM DAWSON'S MARMON

With the departure of Fritzschke the crowd settled back to wait for the early starters to reappear at the end of their first lap. Across the fields in the distance they could faintly discern beyond the trees and haystacks small objects dashing along, only

until Dawson in the Marmon reported.

Mishaps began to develop in the first lap and continued to develop throughout the race. Dawson in the Marmon wrenched off his change gear lever and for the rest of the race was unable to shift his gears, be-

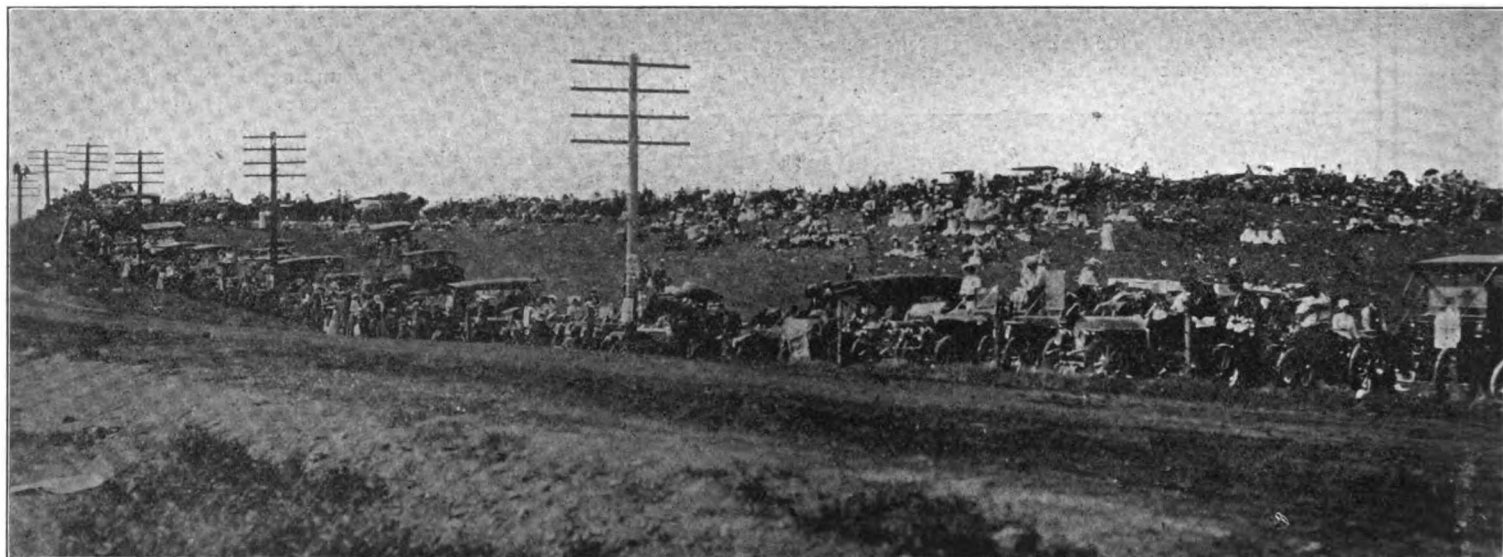


ing forced to stay on high and draw the clutch and let it slam back in lieu of dropping down the gears. Not only that, but he once went off the road into the ditch and back again in attempting to pass another

with the others Fritzschke pulled over to the left too sharply and went into the fields, ripping down posts and fences like paper. Both Fritzschke and his mechanic, Thorp, were severely torn and lacerated by the

was regarded as a likely winner in his class.

Livingstone still was glued to the lead when the tenth lap was reeled off, but Gel-naw, the ambitious, had worked the Falcar into second place, Dawson, in the Marmon,



ONE SECTION OF THE CROWD THAT LINED THE COURSE ON BOTH DAYS

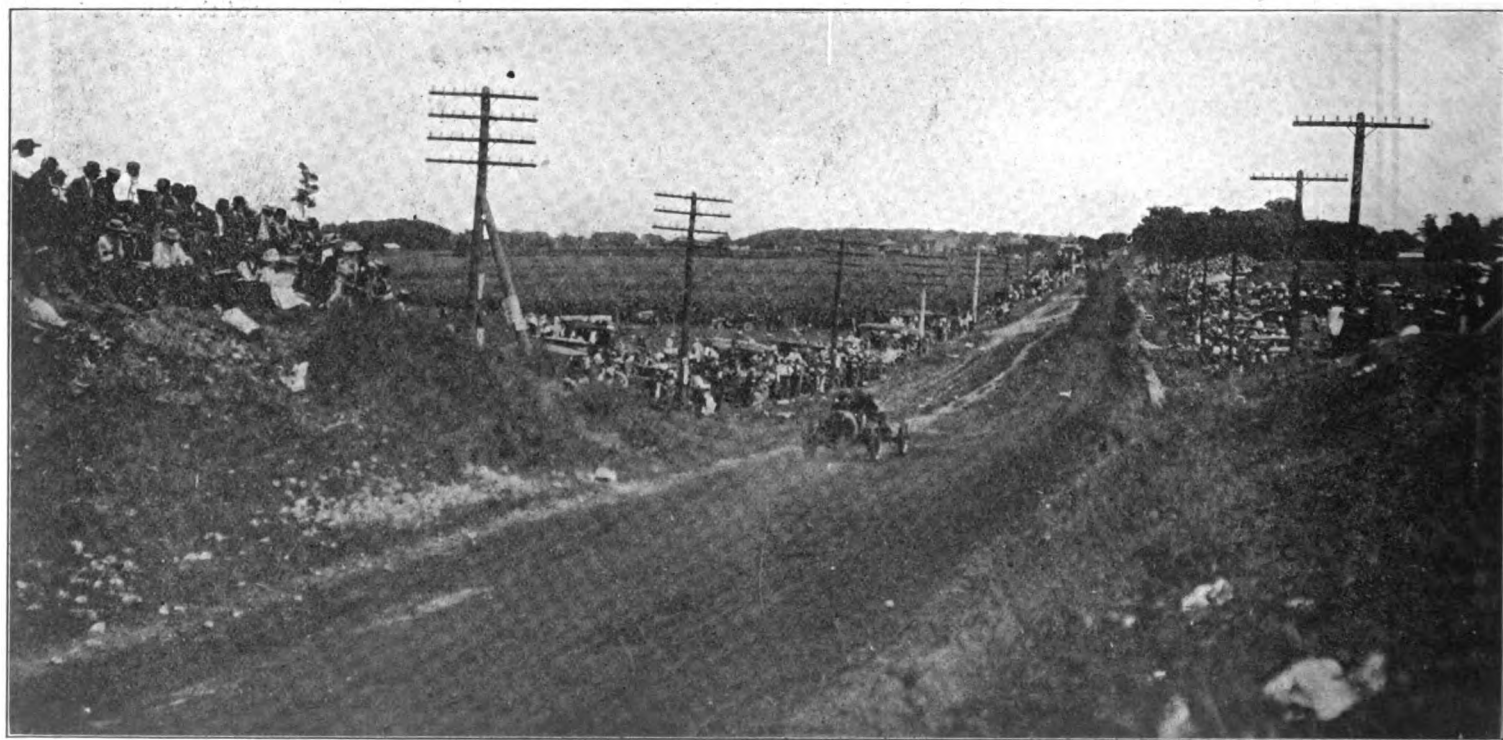
car, and rushed on regardless. Continuous irritating mishaps made him still more reckless as the grind went on and towards the end he was tearing around the turns at a rate that terrorized the spectators at those action centers.

cruel barbs and were taken to the hospital.

The fifth lap of the Fox River marked the elimination of Cheney in the Staver, which broke an oil lead on one of the big bumps and was forced to quit. No more "died" until the eighth lap of the Kane

was third, and Greiner in the National was only seven seconds behind him.

Before the Kane County was half over, it had lost three cars, the greatest mortality of any class thus far. The four who then were running, Buck, Monsen, Heinemann



ONE OF THE GENTLE SLOPES THAT MADE FAST TIME A POSSIBILITY

The first to go out of the contest was Fritzschke in the Cino, who came to grief in the second round on the Udina turn. They were caught in a crush and in attempting to work out and still avoid a collision

County, when Schoeneck, in the Kisselkar, disappeared from the line of battle, to be followed in the next lap by Matson in the Corbin with a broken frame. The latter's retirement was a disappointment, for he

and Schillo were destined to live to the finish. There also was plenty of action in the Fox River, Hearne still widening the gap, and just sleighriding along. Bill Endicott had a good grip on second, leading

Crane, Staver, by over seven minutes, and the latter soon ceased to be a factor. His retirement came in the fifteenth lap, when he was disqualified for the failure of his mechanic to look behind for approaching cars, when Crane was pulling up at the pits.

Just before stopping, Crane had passed Greiner in the National, and the latter was close behind. Greiner, receiving no intimation of Crane's intentions, kept on, and when he saw the Staver slackening, had to do some quick dodging to avoid a collision. By a sharp wrench of the wheel to the right, he managed to clear the Staver by a hair. The incident held the crowd spellbound for a moment, and when it recovered its senses, it broke forth in loud cheers for Greiner. The referee immediately ordered Crane out of the race and disqualified him.

When Endicott was put out by a stone thrown by the wheels of a car in front crashing through the radiator of his Cole, Hearne's most dangerous rival in the Fox River was removed. Miller in the Warren-Detroit moved up a notch, but had to keep on the jump to stave off Monckmeier in the solitary Staver, who seemed bent on revenging the "death" of his mates.

Towards the final stages it became evident that Livingstone and Hearne had the

Illinois and Fox River trophies practically standing on the mantle and interest centered in the Kane County, where competition was keener. Buck, Marmon, had broken a spring, but was tearing along regardless, while his mate, Heinemann, was experiencing much tire trouble. In the periods when they were able to get together they did some great team work in pacing each other. About the sixteenth lap Heinemann's mechanic, Harry Patton, succumbed to the pounding of the roads, and collapsed as he was taken out of the car and a new man substituted. Although several of the drivers and mechanics had wrapped their bodies to save them from being bruised by the terrible jouncing, this precaution did not save them from much punishment.

When Livingstone started on his last lap, the 24th, he had over 10 minutes lead on Pearce in the Falcar, who was tearing along desperately in the hope that some kind fate would put him in the lead. It was not to be, however, and Livingstone held the 10 minutes margin in the last lap, which he covered in 8:46.53. Pearce did his final circuit in 8:21.22 and beat out Dawson in the Marmon for place by nearly three minutes. Dawson was going great guns towards the finish in an effort to wrest second, and tore off the last lap in 8:04.62. Then a period of over eight minutes passed before Greiner

in the second National came tearing past the stand on his final lap, beating out Ireland's Midland by a scant fifteen seconds. The finish between these two was the closest of the day.

Dave Buck, Marmon, and Adolph Monsen, Marion, had a hammer and tongs fight for the Kane County trophy, and the former captured it by three minutes and seven seconds. Heinemann in the second Marmon came in twelve minutes after Monsen, and the last survivor in the class, Schillo, Overland, arrived twenty minutes later.

In the Fox River, Hearne had a veritable walkover at the finish, beating Miller in the Warren-Detroit by over 25 minutes. Monckmeier in the Staver trailed along six minutes after Miller, and the first day's National stock chassis races of 1910 took their place in sporting history.

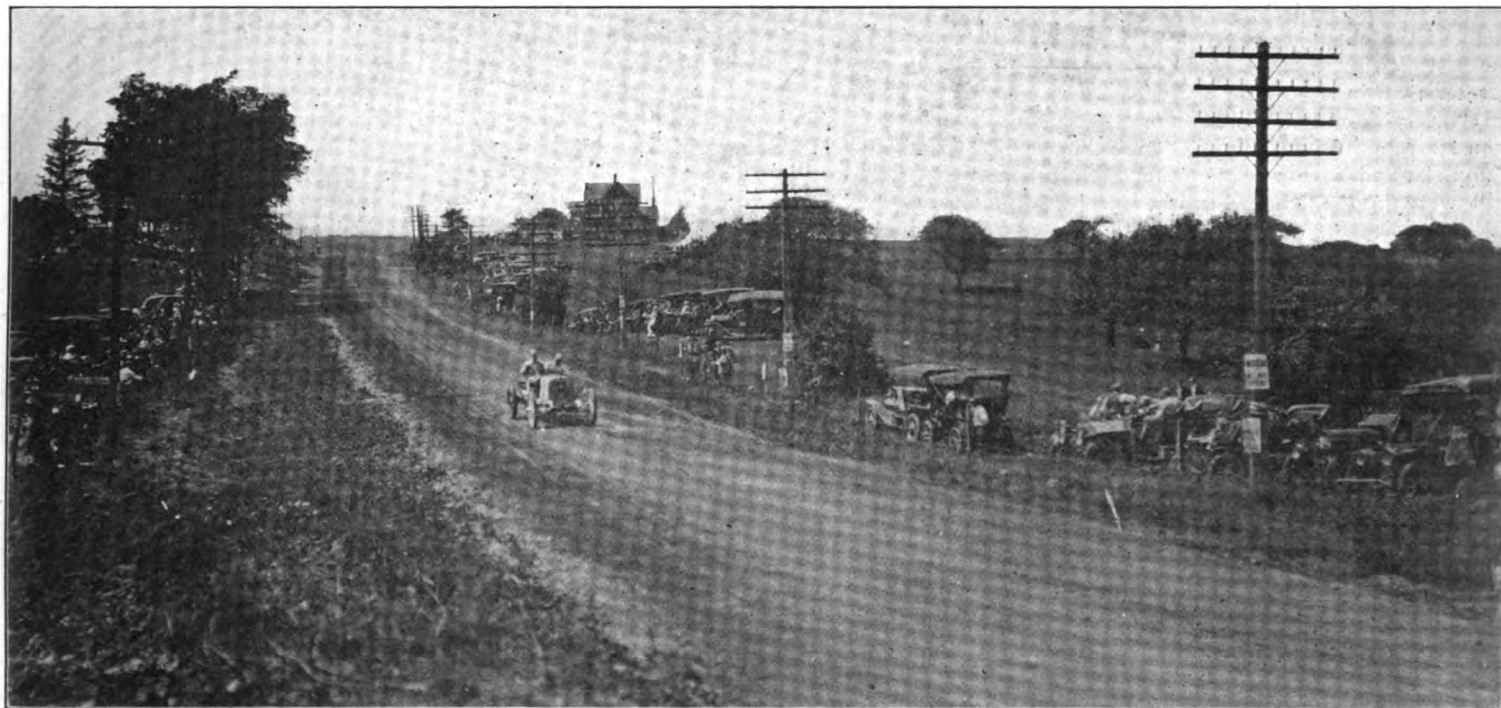
When Livingstone, who was a great favorite with the crowd, because of his pretty driving, crossed the finish line, he continued for another lap to the National camp. He had driven a wonderful race, making a non-stop run, which indicates to what extent sagacious driving and a sound car may count in a long run. At times he reached a speed of 80 miles an hour, but he invariably cut down on the turns to save his car, a system which was followed by most of the veterans.

## How Mulford Won the Elgin National Trophy

Their appetite for speed whetted by the sensational racing which the first day produced, a much larger crowd, which con-

62.5 miles an hour. The victory involves possession of the magnificent \$4,500 trophy offered by the Elgin National Watch Co.,

with which he captured the Illinois trophy on Friday, averaged 60.2 miles an hour in making second place. More honors came



MULFORD AND THE LOZIER GOING "GREAT GUNS" WHERE GOING WAS GOOD

servative estimates place at close to 100,000, saw Ralph Mulford hurl the Lozier for 305 miles to victory on Saturday at the rate of

and \$1,000 in cash besides. It will be held by the Lozier Co. for one year. Livingstone, driving the same speedy National

to the National when Greiner slid in third at an average rate of 58.4 miles an hour. Then came the pride and the hope of the

## THE MOTOR WORLD

## TABULAR STORY OF THE RACE FOR THE ELGIN NATIONAL

Pos.	Driver and Car.	1 8 miles, 2,499 ft.	2 16 miles, 4,998 ft.	3 25 miles, 2,217 ft.	4 33 miles, 4,716 ft.	5 42 miles, 1,935 ft.	6 50 miles, 4,434 ft.	7 59 miles, 1,653 ft.	8 67 miles, 4,152 ft.	9 76 miles, 1,371 ft.	10 84 miles, 3,870 ft.	11 93 miles, 1,089 ft.	12 101 miles, 3,588 ft.	13 110 miles, 807 ft.	14 118 miles, 3,306 ft.	15 127 miles, 3,498 ft.
1	R. Mulford, Lozier.....	Elapsed time..... 8:18	16:18	24:18	32:25	40:37	48:44	56:53	64:57	73:03	81:09	89:10	97:10	105:05	113:04	121:04
		Lap time.....	8:00	8:00	8:07	8:12	8:07	8:09	8:04	8:06	8:06	8:01	8:00	7:55	7:59	7:59
2	A. Livingstone, National.....	Elapsed time..... 8:24	16:26	24:28	32:26	42:09	50:23	58:24	66:19	74:27	82:29	90:32	98:35	106:45	114:53	122:53
		Lap time.....	8:02	8:02	7:58	9:43	8:14	8:01	7:55	8:08	8:02	8:03	8:03	8:10	8:08	8:08
3	A. W. Greiner, National.....	Elapsed time..... 8:26	16:32	24:38	33:01	42:50	51:23	61:07	69:17	77:37	85:56	94:13	102:30	111:00	119:19	127:38
		Lap time.....	8:06	8:06	8:23	9:49	8:33	9:44	8:10	8:20	8:19	8:17	8:17	8:30	8:19	8:19
4	G. Robertson, Simplex.....	Elapsed time..... 8:20	16:26	24:33	32:36	40:41	48:44	56:51	64:55	73:00	89:21	97:36	109:23	117:45	129:52	137:52
		Lap time.....	8:06	8:07	8:03	8:05	8:03	8:07	8:04	8:05	16:21	8:15	11:47	8:22	12:07	8:07
	H. Saynor, Simplex.....	Elapsed time..... 13:57	22:51	32:01	46:25	56:15	66:28	79:51	91:13	110:10	120:03	129:29	138:54	148:46	158:00	167:00
		Lap time.....	8:54	9:10	14:24	9:50	10:13	13:23	11:22	18:57	9:53	9:26	9:25	9:52	9:14	10:00
	B. Oldfield, Knox.....	Elapsed time..... 8:32	20:37	28:40	37:18	46:00	57:41	69:05	82:49	93:44	103:35	112:34	121:25	130:04	143:00	151:00
		Lap time.....	12:05	8:03	8:38	8:42	11:41	11:24	13:44	9:55	9:51	8:59	8:51	8:39	12:56	8:07
	J. Dawson, Marmon.....	Elapsed time..... 8:51	17:21	25:50	34:21	42:50	51:16	59:43	68:10	76:37	85:04	93:29	101:45	110:05	118:29	126:49
		Lap time.....	8:30	8:29	8:31	8:29	8:16	8:27	8:27	8:27	8:27	8:25	8:16	8:20	8:24	8:24
	C. Stinson, Black Crow.....	Elapsed time..... 9:55	19:32	29:01	40:13	49:38	59:08	68:40	88:26	97:58	108:50	124:08	133:50	142:44	153:29	163:00
		Lap time.....	9:37	9:40	11:02	9:25	9:30	9:32	19:46	9:32	10:52	15:18	9:42	8:54	11:25	10:00
	E. Schiefler, Jackson.....	Elapsed time..... 9:00	20:09	31:40	40:24	53:42	62:19	70:50	79:25	88:01	96:27	105:00	113:32	122:03	Ditched	
		Lap time.....	11:09	11:31	8:44	13:18	8:37	8:31	8:35	8:36	8:26	8:33	8:32	8:31		
	H. Endicott, Kisselkar.....	Elapsed time..... 9:38	18:49	28:07	37:23	46:41	55:58	65:03	76:23	85:52	94:56	133:53	Broken Radiator			
		Lap time.....	9:11	9:18	9:16	9:18	9:17	9:05	11:20	9:29	9:04	38:57				
	C. Basle, Matheson.....	Elapsed time..... 8:48	17:20	25:54	34:34	43:11	51:58	60:44	69:48	78:09	87:24	95:50	Wrecked			
		Lap time.....	8:32	8:34	8:40	8:37	8:47	8:46	9:04	8:21	9:15	8:26				
	H. Grant, Alco.....	Elapsed time..... 8:12	Wrecked													
	R. Harroun, Marmon.....	Elapsed time..... 8:48	Seized piston													

East, George Robertson and his Simplex, who was a victim of incessant tire trouble. He had lost so much time replacing the footwear which the spunky Simplex persisted in kicking off that he steadily dropped behind and had to take fourth honors. Robertson drove in his usual brilliant style and experienced no mechanical trouble.

Owing to the poor condition of the course, which, despite its hurried grooming over night, still showed plainly the effects of the chopping which it received on the first day, the mortality in the Elgin was greater than in any of the minor classes of the "merry-go-round," but four of the thirteen starters finished. Two, Oldfield in the Knox six, and Saynor in the other Simplex, still were in the fray when the race was called.

In many respects the Elgin National was not only the greatest road race the middle west has witnessed, but one that was productive of most unexpected results. For instance, Grant, the last Vanderbilt winner, met disaster in the second lap, while pushing the Alco at a terrific clip, and Harroun, the pride of the Marmon camp, likewise succumbed to the fortunes of war on his second round. Six cylinder cars, which a few months ago appeared to be in the ascendancy in speed contests, temporarily at least have gone into eclipse, for not one of the three which started finished, though wholly through the fault of highway casualties.

It was not speed alone which returned Mulford a winner, but a well proportioned mixture of fast work at opportune times and a thorough knowledge of the course and its peculiarities. During the practice

sessions the blonde New Yorker was a most earnest and persistent student of the circuit, and the results of his long workouts were apparent on the race itself. Mulford's victory was a notable triumph for the East, the more so in that it was made in the enemy's territory. He made but one stop, which was unnecessary, and drove most consistently throughout.

Much credit is being given Livingstone and his mechanic for their plucky work in the face of odds that would have unnerved many a man. Shortly before the start, it afterward was reported, Livingstone discovered a crack in his frame, probably due to the frightful racking which it had received on the previous day. Unwilling that another should undergo the terrible risk unknowingly, he informed his mechanic of

the situation and gave him leave to withdraw. But the latter would not hear to any such thing, and the plucky pair started on their perilous journey with the pleasant knowledge that at any moment the weakened frame might be rent asunder. Fortunately the weakness was more apparent than real, for the car came through unscathed.

Society was out in even greater force than on Friday and the stands were simply overflowing, while all around the course the oiled ribbon was hemmed on both sides by rows of spectators several deep. The militia and deputy sheriffs rendered the same valuable service in keeping the course clear, and so stringently were orders enforced that even officials who got outside the lines had to prove themselves to get

## HOW THE ILLINOIS TROPHY RACE WAS RUN

	1 8 miles, 2,499 ft.	2 16 miles, 4,998 ft.	3 25 miles, 2,217 ft.	4 33 miles, 4,716 ft.	5 42 miles, 1,935 ft.	6 50 miles, 4,434 ft.	7 59 miles, 1,653 ft.	8 67 miles, 4,152 ft.	9 76 miles, 1,371 ft.	10 84 miles, 3,870 ft.
Driver and Car.										
Livingstone, National.....	Elapsed time.. 8:14	16:06	24:00	31:55	39:52	47:58	55:58	64:03	72:14	80:20
	Lap time.....	7:52	7:54	7:55	7:57	8:06	8:00	8:05	8:11	8:06
Pearce, Falcar.....	Elapsed time.. 11:43	20:10	28:41	37:11	45:31	53:59	62:58	71:10	79:54	90:38
	Lap time.....	8:27	8:31	8:30	8:20	8:28	8:59	8:12	8:44	10:44
Dawson, Marmon.....	Elapsed time.. 16:15	24:42	33:03	41:13	49:19	57:47	65:53	73:59	82:00	90:03
	Lap time.....	8:27	8:21	8:10	8:06	8:28	8:06	8:06	8:01	8:03
Greiner, National.....	Elapsed time.. 8:44	17:34	26:33	35:19	44:18	53:24	62:24	71:23	79:58	90:10
	Lap time.....	8:50	8:59	8:46	8:59	9:06	9:00	8:59	8:35	10:12
Ireland, Midland.....	Elapsed time.. 9:15	18:19	27:37	36:52	46:08	55:24	64:37	73:48	83:00	92:16
	Lap time.....	9:04	9:18	9:15	9:16	9:16	9:13	9:11	9:12	9:16
Gelnaw, Falcar.....	Elapsed time.. 9:10	18:05	27:09	36:03	44:52	53:52	63:20	72:12	81:03	89:46
	Lap time.....	8:55	9:04	8:54	8:49	9:00	9:28	8:52	8:51	8:43
Drach, Lexington.....	Elapsed time.. 11:59	23:29	34:46	45:53	56:59	68:03	79:07	90:05	101:01	111:55
	Lap time.....	11:30	11:17	11:07	11:06	11:04	11:04	11:58	10:56	10:54
Endicott, Kisselkar....	Elapsed time.. 9:57	19:44	29:34	39:02	49:15	58:59	68:34	77:59	87:28	96:46
	Lap time.....	9:47	9:50	9:28	10:13	9:44	9:35	9:25	9:29	9:18

## TROPHY, SHOWING TOTAL TIMES AND TIMES BY LAPS.

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36							
127 miles.	135 miles, 3,024 ft.	144 miles, 243 ft.	152 miles, 2,742 ft.	160 miles, 5,241 ft.	169 miles, 2,460 ft.	177 miles, 4,959 ft.	186 miles, 2,178 ft.	194 miles, 4,677 ft.	203 miles, 1,896 ft.	211 miles, 4,395 ft.	220 miles, 1,614 ft.	228 miles, 4,113 ft.	237 miles, 1,332 ft.	245 miles, 3,831 ft.	254 miles, 1,050 ft.	262 miles, 3,549 ft.	271 miles, 768 ft.	279 miles, 3,257 ft.	288 miles, 486 ft.	296 miles, 2,985 ft.	305 miles, 204 ft.							
129:08	137:09	145:09	153:10	161:09	169:05	176:59	184:55	193:13	202:59	211:05	219:14	227:24	235:29	243:31	251:40	259:47	268:01	276:16	284:24	292:29.84								
8:01	8:01	8:00	8:01	7:59	7:56	7:54	7:56	8:18	9:46	8:06	8:09	8:10	8:05	8:02	8:09	8:07	8:14	8:15	8:08	8:05.84								
131:39	140:06	148:24	156:37	169:19	177:43	186:00	194:15	202:24	210:33	218:47	227:05	235:26	243:55	252:28	260:59	269:32	278:10	286:50	295:32	304:10.90								
8:32	8:27	8:18	8:13	12:42	8:24	8:17	8:15	8:09	8:09	8:14	8:18	8:21	8:29	8:33	8:31	8:33	8:38	8:40	8:42	8:38.90								
136:12	144:35	153:01	161:30	169:52	178:12	186:21	197:05	205:25	213:48	222:42	231:20	240:02	240:00	257:56	266:54	275:50	284:46	293:54	303:24	313:23.30								
8:27	8:23	8:26	8:29	8:22	8:20	8:09	10:44	8:20	8:23	8:53	8:38	8:42	8:58	8:56	8:58	8:56	8:56	9:08	9:30	9:59.30								
146:08	159:34	167:47	179:14	187:28	198:53	207:02	215:01	223:00	230:57	239:10	252:30	260:46	268:52	276:49	285:46	298:29	306:53	315:02	324:04	332:20.98								
8:05	13:26	8:13	11:27	8:14	11:25	8:09	7:59	7:59	7:57	8:13	13:20	8:16	8:06	7:57	8:57	12:43	8:24	8:09	9:02	8:16.98								
177:27	186:39	196:02	205:24	214:32	224:16	233:44	243:12	252:50	262:16	271:48	281:27	293:10	303:40	312:07	321:49	Race called												
9:25	9:12	9:23	9:22	9:08	9:44	9:28	9:28	9:38	9:26	9:32	9:39	11:47	9:30	9:24	9:42	Race called												
160:41	169:34	178:25	187:06	201:04	209:54	218:57	227:33	236:22	244:19	256:20	265:08	283:07	297:38															
8:51	8:53	8:51	8:41	13:58	8:50	9:03	8:36	8:49	7:57	12:01	8:48	17:59	14:01															
135:08	143:25	151:43	159:58	168:17	181:26	192:33	200:56	209:00	217:09	225:14	Wrecked																	
8:23	8:17	8:18	8:15	8:19	13:09	11:07	8:23	8:04	8:09	8:05																		
173:31	189:26	199:48	222:01	237:17	247:38	257:57	Ditched																					
10:16	15:55	10:22	23:53	15:16	10:11	10:19																						

back. There were many attempts on the part of pompous and self-important persons to beguile the guards into letting them cross the course, but without avail. When their reasons were submitted for examination they failed to stand the acid test and the bluffers were repulsed. Ideal weather again favored the races, and except for the broiling sun, which beat down unmercifully on the spectators but which was tempered by cooling breezes, a more perfect day could not have been desired.

Immediately after the races on Friday gangs of men got busy on the course and patched up as well as they could the holes which the smaller cars had torn in the road. The turns which had suffered most were banked and packed and some of the worst bumps on the stretches were smoothed

down. It was impossible to give more than a cursory treatment to the course and on Saturday it was not as good as on Friday, which was but natural, for it was impossible to eradicate all the damage which had been done.

Again the officials made a name for themselves in the matter of promptness, and Starter Wagner gave Greiner in the National the sendoff a few minutes after 10 o'clock. Half a minutes later Stinson in the Black Crow was released and he flew down the stretch and in a twinkling was lost to sight over the hill beyond. Then came Mulford, togged out in white to match his snow white Lozier. The others followed in the order of their numbers until Schiefeler in the Jackson, the thirteenth and last man, was splitting the air. He wore number 14,

the hoodoo 13 having been eliminated.

Scarcely half a minute after Schiefeler had left, the bugles sounded and the word "Car coming!" was passed along. Grant in the Alco, sixth to start, had immediately cut loose and passed the five who were in front of him. He made the circuit in 8:12, and had been on his second round six seconds when Mulford completed his first. This was a magnificent start for the sturdy and conservative New England driver, but he soon after came to grief near the hairpin turn, when he struck a treacherous projection in the road that wrecked his clutch, crumpled the frame and cast the wrecked flier upon the roadside.

At about the time of Grant's elimination Harroun, in the Marmon, was knocked out near the McLean turn. He had been pushing his engine to the limit to stay with the leaders and the terrific heat caused a snug fitting piston to take a death grip on its cylinder and the car had to be retired.

In the meantime the others were having their troubles, that is some, but not all. Mulford was sailing along steadily and smoothly and Livingstone had crawled into second place. He held it until the fifth lap, when Robertson, who was driving like a fiend, moved up and displaced him. Then ensued a duel between Robertson and Mulford that was one of the most thrilling features of the race. Robertson gained a few seconds in the fifth lap and caught Mulford just before they came into the stretch, both coming furiously down the road abreast and crossing the tape together. Shortly they were tied to the second, and the crowds cheered madly as they flew past. Interest now centered in the fight between these

## AND WON, TOTAL AND LAP TIMES GIVEN.

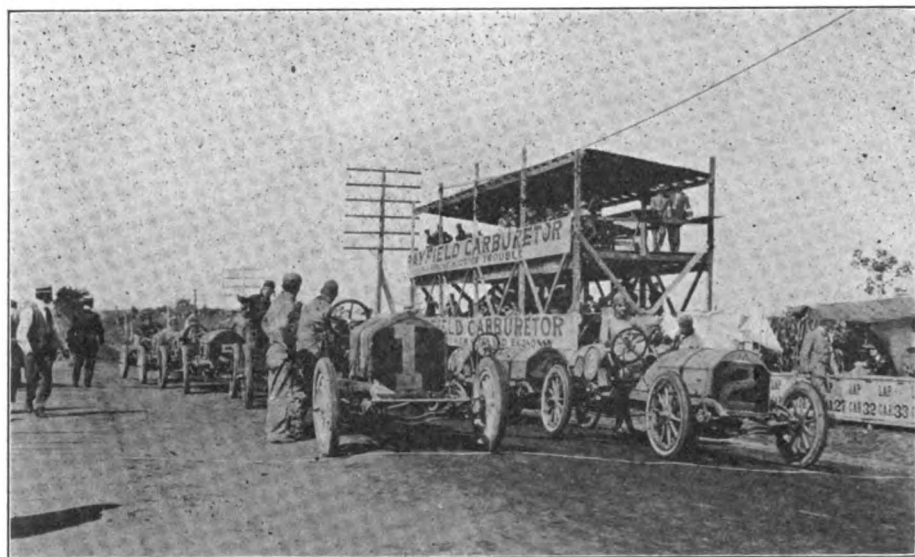
1	12	13	14	15	16	17	18	19	20	21	22	23	24		
93 miles.	101 miles. 3,588 ft.	110 miles. 807 ft.	118 miles. 3,306 ft.	127 miles. 525 ft.	135 miles. 3,024 ft.	144 miles. 243 ft.	152 miles. 2,742 ft.	160 miles. 5,241 ft.	169 miles. 2,460 ft.	177 miles. 4,959 ft.	186 miles. 2,178 ft.	194 miles. 4,677 ft.	203 miles. 1,896 ft.		
30	96:34	104:55	113:02	121:58	130:43	139:31	148:26	156:49	165:12	174:37	183:20	192:22	201:08.53		
10	8:04	8:21	8:07	8:56	8:45	8:48	8:55	8:23	8:23	9:25	8:43	9:02	8:46.53		
29	108:42	117:37	126:12	134:40	143:12	151:40	160:05	168:36	177:13	185:51	194:26	202:58	211:19.22		
51	9:13	8:55	8:35	8:28	8:32	8:28	8:25	8:31	8:37	8:38	8:35	8:32	8:21.22		
09	106:29	116:23	124:58	133:27	141:54	150:16	162:25	170:55	179:08	190:10	198:10	206:05	214:09.62		
06	8:20	9:54	8:35	8:29	8:27	8:22	12:09	8:30	8:13	11:02	8:00	7:55	8:04.62		
27	120:13	130:52	139:06	147:22	155:40	163:57	172:13	180:36	188:57	197:25	205:34	213:52	222:15.30		
17	21:46	10:39	8:14	8:16	8:18	8:17	8:16	8:23	8:21	8:28	8:09	8:18	8:23.30		
25	110:28	119:33	128:38	137:43	146:52	157:09	166:34	175:48	185:11	194:34	204:03	213:12	222:30.10		
09	9:03	9:05	9:05	9:05	9:09	10:17	9:25	9:14	9:23	9:23	9:29	9:09	9:18.10		
35	107:21	130:52	139:36	148:23	157:07	165:50	179:22	204:21	213:11	221:59	Race called				
49	8:46	23:31	8:44	8:47	8:44	8:43	13:32	24:59	8:50	8:48					
58	133:55	144:57	156:01	167:01	178:03	190:50	201:53	212:54	224:00	Race called					
03	10:57	11:02	11:04	11:00	11:02	12:47	11:03	11:01	11:06						

broken radiator



two, Greiner having stopped for tires and Livingstone also. Gaining slowly but surely, Robertson wrested the lead from Mulford in the sixth lap and in the seventh and

of a long series of stops that so proved his undoing. His first stop came as a result of trying to pass Endicott on the Udina turn, and being unsuccessful Robertson



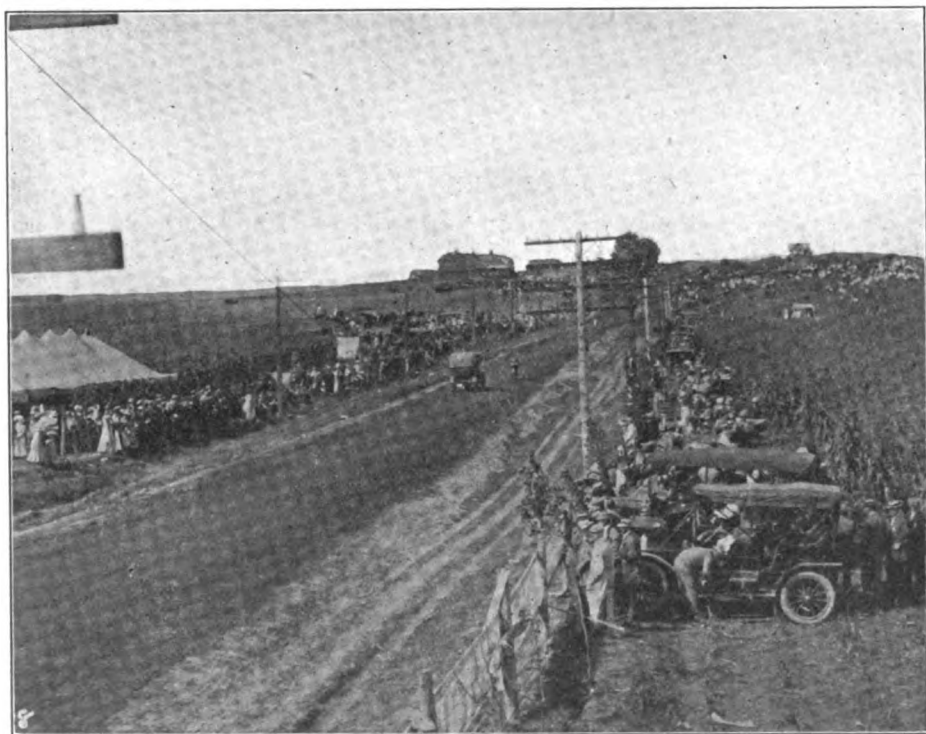
START OF THE ILLINOIS TROPHY RACE

eighth he continued to increase his gains by seconds.

Over-enthusiastic ones already began to give Robertson the race, but they were poor prophets, as events soon proved. When

went into the ditch, slewed violently, threw a tire and pulling the car back on the road, went careening off on the rim to a control.

The eleventh lap saw two more cut down by the scythe of misfortune, Basle, Mathe-



WHERE THE CARS WERE PARKED BY THE COURSE

Mulford came around on the tenth lap Robertson was missing, and in his place came Livingstone, followed by Dawson in the Marmon. "Where is Robertson?" the cry went up, and soon came the answer from the announcer. "He has stopped on account of tire trouble." This was the first

son, and Endicott, Cole. The former ran on a treacherous turn abreast of one of the Nationals and being on the outside went off the edge and slammed into a telegraph pole. The car emerged a mass of wreckage, and Basle escaped by the narrowest margin, being tossed over the barbed wire fence into

THE RACE FOR THE KANE COUNTY TROPHY, CONTESTANTS' TIMES BY LAPS AND TOTALS.	
Driver and Car	
D. Buck, Marmon.....	Elapsed time..10:24
A. Monsen, Marion.....	Lap time.....
I. Heinemann, Marmon...	Elapsed time..9:27
A. Schillo, Overland.....	Lap time.....
J. Matson, Corbin.....	Elapsed time..11:12
G. Schoeneck, Kisselkar..	Lap time.....
W. Fritzsche, Cino.....	Elapsed time..10:24
	Elapsed time..9:44
	Ditched
	Wrecked
	Broken shaft
20	169 miles, 2,460 ft. 175:57 184:45 79
19	160 miles, 5,241 ft. 175:57 184:45 79
18	152 miles, 2,742 ft. 167:30 178:38 187:52 65
17	144 miles, 243 ft. 159:09 167:30 178:38 187:52 65
16	135 miles, 3,024 ft. 150:36 167:30 178:38 187:52 65
15	127 miles, 525 ft. 141:57 150:36 167:30 178:38 187:52 65
14	118 miles, 3,306 ft. 133:33 141:57 150:36 167:30 178:38 187:52 65
13	110 miles, 807 ft. 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
12	101 miles, 3,588 ft. 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
11	93 miles, 1,089 ft. 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
10	84 miles, 3,870 ft. 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
9	76 miles, 1,371 ft. 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
8	67 miles, 4,152 ft. 71:56 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
7	59 miles, 1,653 ft. 62:42 71:56 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
6	50 miles, 4,434 ft. 53:57 62:42 71:56 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
5	42 miles, 1,935 ft. 45:14 53:57 62:42 71:56 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
4	33 miles, 4,716 ft. 36:29 45:14 53:57 62:42 71:56 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
3	25 miles, 2,217 ft. 27:52 36:29 45:14 53:57 62:42 71:56 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
2	16 miles, 4,998 ft. 19:20 27:52 36:29 45:14 53:57 62:42 71:56 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65
1	8 miles, 2,499 ft. 10:24 19:20 27:52 36:29 45:14 53:57 62:42 71:56 81:15 90:11 99:04 115:11 125:05 133:33 141:57 150:36 167:30 178:38 187:52 65



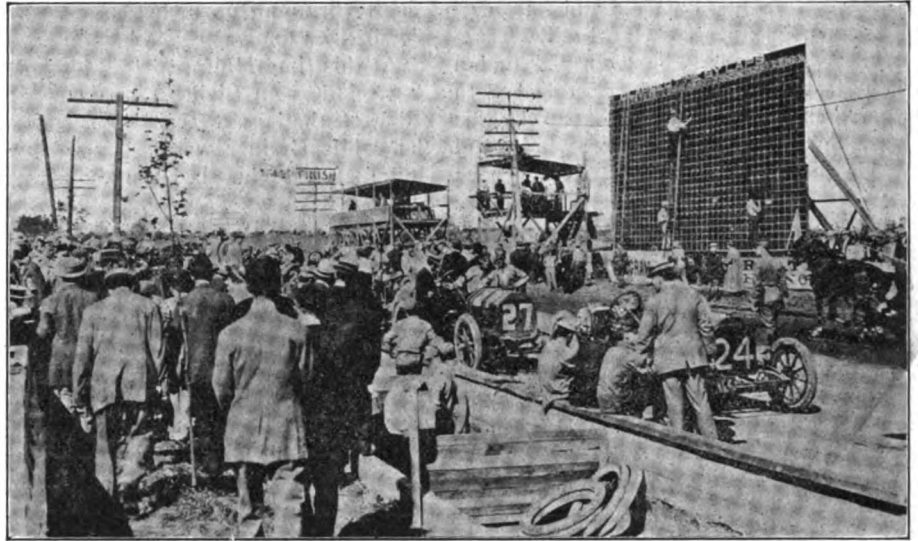
## THE RACE FOR THE FOX RIVER TROPHY, CONTESTANTS' TIMES BY LAPS AND TOTALS.

Driver and Car	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
E. Hearne, Benz.....	8 miles, 2,499 ft. Elapsed time.. 9:31	16 miles, 4,998 ft. 18:41	25 miles, 7,497 ft. 27:55	33 miles, 10,995 ft. 37:12	42 miles, 14,493 ft. 46:50	50 miles, 17,991 ft. 56:41	59 miles, 21,489 ft. 65:52	67 miles, 24,987 ft. 75:06	76 miles, 28,485 ft. 84:23	84 miles, 31,983 ft. 93:52	93 miles, 35,481 ft. 103:22	101 miles, 38,979 ft. 112:41	110 miles, 42,477 ft. 122:05	118 miles, 45,975 ft. 131:25	127 miles, 49,473 ft. 141:01	135 miles, 52,971 ft. 150:40
A.W. Miller, Warren-Detroit.....	Elapsed time.. 10:24	20:47	31:52	42:20	52:47	64:14	74:19	85:17	95:38	105:36	115:36	125:14	135:07	146:24	162:27	176:11.62
G. Monckmeier, Staver.....	Lap time..... 10:59	37:36	46:48	56:45	66:35	76:27	87:55	98:53	108:32	118:17	129:04	140:53	150:06	160:51	171:05	181:05.57
N. Crane, Staver.....	Lap time..... 10:34	20:52	31:18	41:43	52:09	62:43	73:18	83:33	93:56	104:22	114:32	124:39	134:48	145:10	155:10	165:10
W. Endicott, Cole.....	Elapsed time.. 10:22	20:10	29:43	39:26	49:10	58:47	68:19	78:02	87:38	97:17	106:57	116:40	126:19	136:05	145:40	155:10
C. Cheney, Staver.....	Lap time..... 9:58	21:26	31:12	40:07	49:08	58:07	67:08	76:08	85:08	94:08	103:08	112:08	121:08	130:08	139:08	148:08
	Lap time.....	11:28	9:46	14:55	21:01	27:07	33:13	39:19	45:25	51:31	57:37	63:43	69:49	75:55	82:01	88:07

the field. Endicott, whose radiator was smashed by flying stones, had stopped to patch it, but soon after getting under way it commenced to leak like a sieve and he was forced out of the running.

ertson continued to throw tires on every round.

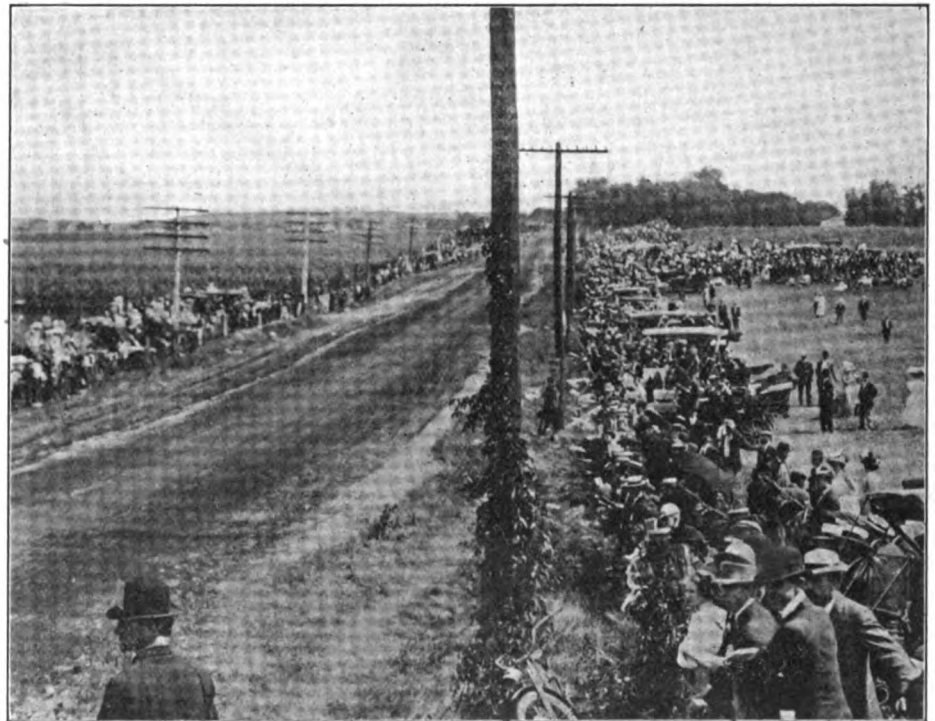
On his twentieth circuit Mulford started a spurt and for the next few laps continued to accelerate, lap by lap, the sprint cul-



AT THE START OF THE "MERRY-GO-ROUND"

Next to be cut down was Schiefler in the Jackson, who unwitting of Robertson's experience, took the Udina turn at a reckless clip. It proved his undoing, for he swept off the turn into the ditch, a wheel crumpled

minating in the twenty-second, when he girdled the course in 7:54, the record lap of the race. Fearful of what this cyclonic pace had done to his tires he stopped to inspect them in the twenty-third round, but they



WHERE THE PEOPLE WERE PACKED BY THE COURSE

up, and the Jackson went down to rise no more. As usual the crew escaped miraculously. Things were sifting out rapidly, for some of the other promising ones also. Oldfield, from whom much was expected, had tire trouble, and minor difficulties, which necessitated numerous stops. Rob-

were in good shape, and after a moment's delay for oil and gas he was off again. Stinson in the Black Crow checked out in the twenty-second round on the fatal McLean turn by attempting to take it too fast. Into the ditch he went, a wheel gave way and the Black Crow was laid to rest.

By this time the race had narrowed down to five, Mulford, Livingstone, Greiner, Robertson and Dawson. Oldfield and Saynor in the Simplex were still running, but experiencing so much trouble that they did not figure as possible winners. The five mentioned were well bunched and were cutting out a killing pace, Mulford still serenely holding the lead. The twenty-sixth lap saw the last hope of the Marmon dashed to earth, when Dawson, wrought up by his delays, threw caution to the winds and gave his car a full head on the treacherous

back stretch where Grant had come to grief. It was not long before he met the same fate as the Alco pilot, a projecting rock throwing the car in the air and springing the frame. When it returned to earth the car shot across the road and over a ditch, finally bringing up in the soft turn by the road. Dawson was the last to be eliminated.

At this time Mulford had a lead of nearly ten minutes on Livingstone, and was whittling off the laps several seconds faster than he, while Greiner was holding down third by a safe margin. It became apparent that

barring accident this would be the order of finish. Mulford drove the last lap in 8:05, and finished 11:41 ahead of Livingstone. There was a wait of over nine minutes before Greiner came thundering along and people began to wonder what had become of Robertson. It was known that he was considerably behind, and after a wait of 20 minutes more the bugles announced his coming. Immediately after he flashed under the wire the race was called. Oldfield still was on his thirty-first lap and Saynor in the Simplex was making his twenty-ninth.

## Elgin Races a Marvel of Management

Chicago and Elgin joining hands have demonstrated that they are amply able successfully to conduct a really big road race, or, rather, a series of races. It would be a captious critic who would pick flaws in the conduct of the affair of last Friday and Saturday, for the management was practically perfect and the results, financially as well as otherwise, more than satisfactory. A certain result is the making of the venture an annual affair, and already plans are under way to make it bigger and better next year.

Of the course itself opinions vary, but the times made, 62.5 miles per hour in the big race of Saturday over a distance of 305 miles, proves the course to be a fast one, and the accidents, numerous as they were, were not wholly attributable to the course, though the rough going did play havoc with a number of the machines, notably the Marmon entries, which were making their usual fine showing when misfortune overtook them the second day, after they had made a most auspicious opening on Friday. The National entries covered themselves with glory, winning the Illinois trophy on Friday and running second and third in the big Elgin trophy race on Saturday, and besides running away with the fastest round of the meet, the lap in 7:52 on Friday as against 7:54 for the fastest round of Saturday's winner.

The Matheson entry was put out of the big race by a most unusual and peculiar happening. After running strongly for a number of laps the brakes bound and the frictional heat created became so intense that it burned the spokes on the rear wheel inside to a point where they were smoldering, the onrush of cool air keeping the outside of the wheels comparatively cool, so that there was no visible indication of what was happening. Basle, the driver, "scraping" with another car, took a turn at high speed, slammed on his brakes to get around, when the already weakened spokes let go. The wheel collapsed, ditching the car, though happily the driver and mechanic were not seriously injured, though hurled far from the car. Robertson with his big Simplex drove a valiant race, but

tire troubles proved too great a handicap, and probably cost him the race.

On Friday, the opening day, the crowd, while naturally not anywhere near so large as Saturday's influx, saw some splendid racing. Incidentally they got the first taste of what the Illinois State Guardsmen do in the way of guarding a course, and what a revenue a far-seeing management, working in conjunction with the residents and property-holders and backed by the authorities, can extract from visitors. And this without creating the slightest friction or in any way "gouging." Rooms were clean, prices were uniform and fair and everyone was satisfied.

The policing of the course was perfect. The Illinois militia, smart and business-like in their brown service uniforms, were under orders to keep the course clear and prevent anyone from crossing it. The course was closed at 9:00 o'clock, one hour before the events began, and remained closed until they were over. The soldiers simply carried out orders and that was all there was to it. There was no argument, the man in uniform and a gun compelling a wholesome respect. At the same time if anyone had any real business to cross the course he was referred to an officer, all of whom were unfailingly courteous, and, if satisfied as to the sufficiency of the reason, the visitor was escorted across the course.

The discipline maintained was in striking contrast to that of the imitation soldiers of the last Vanderbilt cup race, where the guarding of the course was a miserable joke.

In these Elgin road races practically everybody who saw the races paid fifty cents to do it, and, if they came in cars, paid a uniform price of one dollar (\$1) for parking space and fifty cents per passenger besides. This was accomplished by co-operation with the farmers, who were property holders, an association of 83 of them dividing one-third of the gate receipts.

The "admissions" were secured in an effective manner. All the roads leading to the course were closed about a half mile

from it, and ticket booths placed at the closing points. Here the tickets were sold in the form of blue badges, which were required to be worn, so that if by any chance one slipped by the battery of tin-plate star wearers at the entrance he was held up and made to produce by relays of constables stationed all along the line. Grandstand tickets cost an additional dollar. Several of the parking proprietors announced that their receipts were all to be given to some worthy charity, and "lady checkers" at these places did a large business.

When a car was parked alongside the course it was parked for the day and was not allowed to leave until the races were over. This rule, like the others, was enforced, too. Altogether, the management was a revelation to the visitors who contrasted it with that of the big events of the East, and all were lost in its praise.

The small fly in the ointment was the action of several of the small towns between Chicago and Elgin, notably Maywood and Oak Park, where machines were compelled to crawl along at a snail's pace, dozens of drivers being hauled up and mulcted of \$25 each for a speed of over 10 miles an hour.

The weather conditions were perfect, the races started promptly on time, and altogether the first Elgin road races may be writ down an unqualified success. Sanction for next year with the cordial approval of the A. A. A. officials present has already been applied for.

### Experts Disguise Stolen Motor Cars.

That a band of expert mechanics has been formed in Pittsburg, Pa., with the sole object of disguising and rebuilding automobiles, is the statement of Captain William Elmore, of the Pittsburg detective bureau. More than three hundred complaints have been received, and Captain Elmore sent his sleuths out with the rather big order: "Somewhere in this city there is an automobile counterfeiting plant, where stolen machines are taken to, made over to hide their identity and then put out and sold as new machines. Now go out and find it."

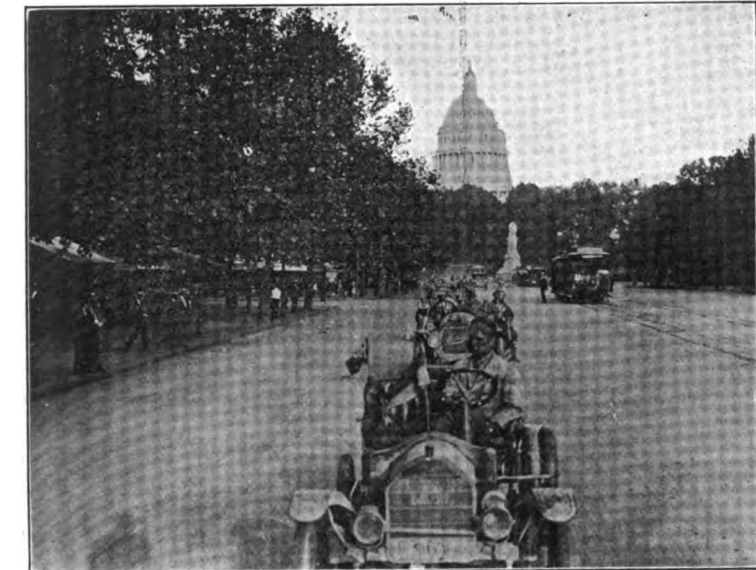
## MUNSEYITES END THEIR TOUR

**Perfect Road Scores for Thirteen Cars—  
Walls Wins the Sweepstakes—Happenings Along the Way.**

Thirteen cars finished the Munsey tour with perfect scores insofar as road penalties were concerned, at Washington, last Saturday afternoon, 27th ult. They were then turned over to the technical commit-

tee, of which E. L. Ferguson, referee, is chairman, for an inspection, which consumed two days.

On Tuesday the awards were announced, the formal presentation being postponed 24 hours, in order to permit protests to be lodged. The sweepstakes prize was given to Harry E. Walls, Maxwell, penalized three points. The other winners:



MUNSEY TOURISTS ARRIVING AT WASHINGTON



ORGANIZING THE PARADE FOR TRIUMPHAL ENTRY



THE PROCESSION ON PENNSYLVANIA AVENUE



GENERAL VIEW OF ESCORTING DELEGATION

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Division 1A, selling under \$800—D. E. McCoy, Brush; P. R. McKinney, Brush, second.

Division 2A, from \$800 to \$1,200—James Cherry, Ford; C. E. Miller, Ford, second; F. K. Peabody, Ford, third.

Division 3A, from \$1,201 to \$1,600—H. E.

Walls, Maxwell; Tom Berger, Warren-Detroit, second; Roy Upton, Moon, third; Emery Kudson, Staver-Chicago; fourth, A. A. Miller, Crawford, fifth; Clarence La Mar, Great Western, sixth.

Division 4A, from \$1,601 to \$2,000—W. D. Arrison, Washington; A. A. Carter, Washington, second; Harry Frisch and H. C. Brown, Enger, third; Ross Henwood, Ohio, fourth; I. W. Dill and G. H. Covert, Interstate, fifth; Louis Strang, Pierce Racine, sixth.

Division 5A, from \$2,001 to \$3,000—L. H. Shaab, Stoddard-Dayton; A. T. Bailey, Corbin, second; G. M. Bayner, Columbia, third; Walter Donnelly, Cino, fifth; C. C. Fairman, Kline, sixth.

Division 6A, over \$3,000—D. A. Hall, Matheson (only contestant).

The perfect road scores were: G. M. Wagner, Columbia; A. G. Carter, Washington; W. D. Arrison, Washington; Chas. E. Miller, Ford; A. T. Bailey, Corbin; D. E. McCoy, Brush; Harry F. Risch, Enger; Walter Donnelly, Cino; L. H. Shaab, Stoddard-Dayton; Harry E. Walls, Maxwell; C. C. Fairman, Kline; D. A. Hall, Matheson; James Cherry, Ford.

The eighth day of the journey was from Saratoga to Binghamton, 165 miles, with a noon stop at Cooperstown. It was a period of rather hard driving which brought the announcement that Clarence La Mar, Great Western, had been penalized 2,161 points, following the accident of two days earlier, near Montpelier, where the driver turned sharply and ran into a bridge to avoid striking a woman in a carriage. Another development was the withdrawal as a contestant of Kenneth Crittenden, Krit, be-

cause of the breaking of the steering spindle, which caught the left front wheel. The spokes were carried away and the axle bent. The trouble dated back to a street car collision in Portland. A wheelright was finally found, enabling the car to continue as a non-contestant.

The ninth day carried the party over 99 miles of rough hilly roads in Pennsylvania to Binghamton. There were two penalizations. Louis Strang, Pierce-Racine, received 30 points for repairing a gasoline pipe, and Ross Henwood, Ohio, was debited four points for being late at a noon control.

Harrisburg was the objective point on the tenth day, when speedometers regis-

tered 116 miles over the fairly satisfactory roads of the Susquehanna valley. Because of a spring, broken just outside Bloomsburg, A. W. Laroche withdrew the Regal Plugger as a contestant. Ross Henwood, Ohio, received five points additional, two for ignition and three for work on the carburetter, while the Pierce-Racine got 12 points more for the replacing of a spring bolt.

The noon check was Selin's Grove. Several members of the Harrisburg Automobile Club ran out from that city to do escort duty. In the evening the club gave a smoker and supper with souvenirs to the visitors.

The eleventh and last day's run of 160 miles, to Washington, was probably the hardest of all, because of the thick dust added to the rough going. Luncheon was served at Frederick, Md. Four penalties were imposed. Tom Berger, Warren-Detroit, was awarded 11 points for work on stay rod and magneto, and Clarence La Mar, Great Western, 66 points. The latter consisted of 21 points for being late at a control and 45 for a technicality. That car broke a spring soon after leaving Harrisburg, but ran through to Washington without repairs, where it was withdrawn. Ross Henwood, Ohio, got three points more for repairing a timing rod and Roy Upton, Moon, one point additional for an involuntary motor stop. Several of the cars went so far out of the way that they were reported lost. The Kline, for instance, traveled 20 miles out of the reckoning, but managed to get to the noon control without being late, and others were temporarily belated in consequence of a misunderstanding of the road directions on this part of route.

In order to prevent speeding into the National Capital cars were sent off in the order in which they were entered. Each driver was given a large card with the time he was due to arrive at the control marked on it in large letters. If an entrant coming up behind him wished to pass him and speed ahead of him he showed his card-board to the following automobile. If the car wishing to pass was not due ahead of the man in front he was not allowed to pass.

Tom Berger, Warren-Detroit, 15 points; A. S. Hardart, Elmore, disqualified because stock model certificate was not filed; P. R. McKenney, Brush, 3 points; A. W. La Roche, Regal Plugger, withdrawn as contestant; Louis Strang, Pierce-Racine, 42 points; Clarence La Mar, Great Western, 2,227 points, withdrawn as contestant; Kenneth Crittenden, Krit, withdrawn as contestant; Ross Henwood, Ohio, 71 points; Emery Kudsén, Staver-Chicago, 242 points; Maxwell runabout withdrawn as contestant; A. A. Miller, Crawford, 867 points; Fred Cassell, Glide, withdrawn; I. W. Dill and G. H. Covert, Inter-State, 111 points; Roy Upton, Moon, 3 points; F. H. Peabody, Ford, 8 points.

## BALL TRIUMPHANT AT CHEYENNE

**Captures 200 Miles Contest on the Four Miles Speedway—Corkhill and McMillen Receive Honors.**

Apperson Jackrabbits took first and second prizes last week in the 200 miles automobile race over the Cheyenne (Wyo.) four mile speedway. Harry Ball, Denver, took first honors in a 55 horse power car, while J. C. Corkhill, of Denver, was next, although he completed only 160 miles. Ball's time was 2 hours, 58 minutes, 28 seconds, or 67.3 miles an hour. The referee was George H. Nagle, president of the Cheyenne Motor Club, who was largely responsible for the success of the affair. Ralph W. Smith, of Denver, acted as representative for the American Automobile Association.

Ball won a race in 1908 in Brighton, and two, this year, on the Overland track. His mechanic was James Allen, of Denver, who had never been in a race before. There were six starters. The first to drop out was Lisle Branson in the 30 horse power Buick. He withdrew at the end of 64 miles because of a broken fan. The 60 horse power Thomas Flyer, driven by James McDonald, of Denver, had three attacks of tire trouble, finally dropping out at the end of 104 miles, with a broken spring and wheel. McDonald made one four-mile lap in 3:18, and the first four miles (standing start) in 3:35.

Harold Brinker in the 45 horse power American completed 130 miles, finally developing a leaky radiator. Ten miles further on Eaton McMillen in the 40 horse power National succumbed to a magneto affection. He received third prize. The contest brought many fast laps and daring turns.

### Washingtonians Hold a Climb.

The Automobile Club of Washington had its first hill climb Tuesday, the 30th ult., at Randle Highlands when 6,000 persons saw excellent sport. The hill is nearly a mile long, with two turns, and has a grade of 15 per cent. It is popularly known as "Mount Dome," leading to the summer residence of Col. Arthur E. Randle, and is considered the steepest ascent in the District of Columbia. The weather proved ideal. The event was sanctioned by the American Automobile Association, R. B. Caverly being the referee. The summary:

Class A, Division 1A—Open to any gasoline stock cars selling for \$800 and under—Won by Thomas W. Cadick, Krit; second, R. C. Wilson, Hupmobile; third, Jack Ray, Krit; fourth, Bert Robertson, Maxwell; time, 1:53¾.

Class A, Division 2A—Open to any gasoline stock cars selling for \$801 to \$1,200—Won by Berges, Warren-Detroit; second,

Chas. Miller, Ford; third, Howard Bauer, Oakland; fourth, Edwin J. Drake, Ford; time, 1:03¾.

Class A, Division 3A—Open to any gasoline stock cars selling for \$1,201 to \$1,600—Won by Ward Angle, Buick; second, Theodore Barnes, Warren-Detroit; third, A. M. Llano, Petrel; time, 1:09¾.

Class A, Division 4A—Open to any gasoline stock car selling for \$1,601 to \$2,000—Won by T. S. Johnson, Buick; second, Howard Bauer, Oakland; third, G. G. Hammer, Buick; fourth, James Orme, Apperson; fifth, Griffin Halstead, Buick; sixth, John J. Fister, Apperson; seventh, Edwin Hammerly; time, 1:02¾.

Class A, Division 5A—Open to any gasoline stock car selling for \$2,001 to \$3,000—Won by W. B. McBurney, Matheson; second, R. A. Klock, Columbia; time, 1:03¾.

Class A, Division 6A—Open to any gasoline stock car selling for \$3,001 to \$4,000—Won by A. D. Hall, Matheson; second, J. L. Lescault, Palmer-Singer; time, 0:58.

Free-for-all—Won by T. S. Johnson, Buick; second, W. B. McBurney, Matheson; third, J. L. Lescault, Palmer-Singer; time, 49½ seconds.

### Makes Ready for the Brighton Meet.

Dan J. Smith (et al.), who, temporarily at least, has superseded the Motor Racing Association as general purveyor of automobile racing at the Brighton Beach track, New York, is making a strong bid for public favor for his initial meet on the 3d and 5th inst. In addition to Oldfield, who will be seen in action in the metropolis for the first time in five years, George Robertson and other prominent local pilots, Smith also has secured Eddie Hearne, the Chicagoan, who won the Fox River trophy race, the little car event at the Elgin carnival last week. As an evidence of good faith Smith has deposited \$1,900 with Chairman Butler, of the A. A. A. Contest Board, who will draw on this fund for the prizes on order of the referee. The meet has been given the sanction of the governing body, after the conclusion of the precautionary steps to insure the winning contestants receiving their prizes.

### Norristown Tries Calcium Chloride.

An innovation in the treatment of dirt tracks with dust laying preparations is being tried by the Norristown (Pa.) Automobile Club in preparing the Belmont track at Narbeth for its race meet on the 24th inst. Instead of following the usual method of sprinkling the course with oil, calcium chloride, which in exhaustive tests has proven superior to oil and is widely used abroad for road treatment, will be employed. In addition to its dust laying properties it is clean and odorless, while the dangerous skidding incidental to oiled courses are reduced by its use. The feature of the meet will be a match between Robertson and DePalma.



## TWELVE IN GRAND FORKS TOUR

Three Days' Jaunt of 322 Miles Proves Pleasant Throughout—Hospitalities Showered on the Participants.

Three hundred and twenty-two miles were covered by the Grand Forks (N. D.) Automobile Club on its three days' run, 16th, 17th and 18th ult., which it is expected will hereafter be an annual affair.

made the entire trip, preserving its place without trouble.

At Walhalla and Devil's Lake, where over-night stops were made, the local motorists and citizens arranged entertainments, which were especially appreciated by the women tourists. The dinner points at Grafton, Langdon and Lakota were rendered most agreeable by local hospitalities. Park River, Starkweather, Webster, Crary, Dayon, Minto, Petersburg, Larrimore, Michigan City, Langdon, Munich and

drawback is the uneven surface, and the Grand Forks Club has undertaken, with outside co-operation, to work an improvement along that line by advocating the use of the split log drag.

### Census Man Approves of Motors.

There has been a good deal of guess work in the many statements regarding the number of automobiles used on the farms, and it is therefore of value to have the testimony of an official census enumer-



NIGHT CONTROL AT DEVIL'S LAKE



AN UNOFFICIAL HALT AT MOUNTAIN

It was planned and carried out not as an endurance contest, but for the purpose of developing public sentiment in favor of good roads and to create a spirit of good fellowship among the automobilists of the State. Not one accident occurred. The Grand Forks Club, organized in 1904, is the oldest and largest in the State. The present officers are: W. L. Wilder, president; A. I. Widlund, secretary, and W. H. Kelsey, treasurer.

Twelve entrants, beside the repair car, driven by E. D. Hanson, comprised the party, each driven by its owner and carrying from two to four passengers. The participants were: Dr. L. L. Eckman, Velie; M. F. Murphy, Glide; S. S. Titus, Overland; J. M. Sturtevant, Buick; W. H. Witherstine, Maxwell; J. W. Ogren, Buick; A. I. Wilund, Winton; W. L. Wilder, Pope-Hartford; Fred. Haverland, Velie; Wm. Flynn, Kissel; W. H. Kelsey, Franklin; J. E. Sandlie, Overland, and E. D. Hanson. The course and distance covered each day was: Grand Forks to Walhalla, 103 miles; Walhalla to Devils Lake, 108 miles; Devils Lake to Grand Forks, 111 miles.

The route lay for the greater part over the broad North Dakota prairies, but for 40 miles passed through the peculiarly formed Pembina mountains—elevations that would be termed hills in a mountainous country—which afforded some climbing. The grades, however, were negotiated with ease. In fact, one 12 horse power runabout

Lakota tendered welcomes, several sending out delegations to act as pilots.

The beginning thus made in the conduct of automobile tours through the Northwest by the Grand Forks Club should serve to draw general attention to that region. A

actor as to the abundance of automobiles in the agricultural district of Iowa. Guy Rankin, one of the Fort Dodge census takers, says the farm population is not so great as it was, but that the automobile is causing people to want to get back to the farm, now that they have a certain way of going to town whenever they please. The automobile therefore is becoming the most important factor in the rehabilitation of abandoned farm lands.

### Motor Car in His Bark's Davits.

Carrying an automobile in her davits, the same as any other well-behaved ship carries her boats, the American bark Carrie Winslow entered New York Harbor a few days ago, causing no end of excitement by her unique equipment. It was said along the river front that the bark is the only vessel on the high seas, the finest passenger liners not excepted, which carries a touring car slung in her davits as a piece of auxiliary apparatus. The skipper, Captain Krum, unloads the motor car whenever he reaches port.

### Colleges Give Automobile Lessons.

Automobile matters are now part of the curriculum of many of the larger agricultural colleges. Among them are the Iowa College at Des Moines, Iowa, and the Michigan Agricultural College at Lansing, Mich., which recently have added automobile instruction to their curriculum.



NOON CONTROL AT PANGDON

dozen routes may be laid out from Grand Forks, each covering from 600 to 1,000 miles, on which no grades exceeding 10 per cent. would be encountered. The only



## OMAHANS IN A TOUGH MUD PLUG

**First Annual Endurance Run Develops Hardships—Twenty of Twenty-two Starters Survive the Three Days.**

Plenty of mud, much gumbo and an abundance of cold weather were encountered by the participants in the first annual endurance run of the Omaha Motor Club, a three-day affair which ended Friday, the 26th inst. The first day proved the most troublesome. There were 22 starters, all but two of whom finished.

The first day's run was to Lincoln via Red Oak, Shenandoah, Hamburg, Ia., and Lincoln. The only incident of the day was the collision of E. H. Sprague's Chalmers with a cow, the owner of which happened to be hard by. The cars all reached Lincoln between 3:15 and 6:30 p. m. It was considered something of a joke that in the excitement of starting R. A. Doty in his Maxwell got away ahead of the pacemaker.

The second day's journey was from Lincoln to Kearney, via Crete and Hastings. Such good roads were found that the last competing car checked in at 5 p. m., the first one arriving more than two hours earlier. Kearney was the night stop of the Glidden tour of 1909 after leaving Omaha, so it was not the first invasion of tourists at that place, at which approximately 370 miles had been covered.

The third and last day called for about 250 miles, the route including Grand Island, Central City, Columbus and Fremont. At Columbus the Frayer-Miller Teuton truck met with a minor break and so laid up for the night. The first car to reach Omaha was driven interchangeably by Ed Mockett and C. A. Sadler; a White, which was checked in at 4:23 p. m., by President Ole Hibner, of the local motor club; next were Guy L. Smith and B. C. Russel, in a Franklin, four minutes later. All but three contestants had reported by 6 o'clock and they arrived soon after.

The cars were parked and turned over the next morning to the technical committee, of which Otto C. Nestman was chairman, and which, as usual in such cases, reserved its decision for the time being. The entrants that retired were Fay Knott, Cole, owing to a broken steering knuckle, and E. H. Sprague and John Parkhurst, Chalmers, because of a broken axle.

The cars in their order of finish: E. A. Mockett and C. A. Sadler, White; Guy L. Smith and B. C. Russell, Franklin; A. B. Cameron, Buick; William Hall, Columbia; E. Silver, Velie; C. H. Carney and W. E. Nutting, Midland; H. E. Obderkirk, Buick; M. C. Duggan, Buick; Dr. D. C. Soucup and J. Rachman, Chalmers; H. E. Fredrickson, Chalmers; J. M. Monnich, Ford; Max Gottberg, Ford; Walter Smith and Frank Wal-

ker, Chalmers; A. L. Stahlew, Buick; L. E. Doty, Maxwell; C. B. Bogue, Kissel; A. Merrill, Stoddard Courier; W. F. Huffman, Hupmobile; Miss Bessie Amos and Miss Chelsea Jones, Chalmers; R. A. Doty, Maxwell.

### Catskill Bonifaces Await the Tour.

Now that the summer vacation season is waning, Catskill hostelkeepers are anxiously looking forward to the 10th and 12th inst., when their good friend, the Motor Contest Association, will endeavor to conduct his postponed Catskill reliability run and hillclimb, which, originally was set for July 16 to 18. It was put by owing to the "unfortunate absence of several New York tradesmen who wished to enter, and who were on their vacations," and the "difficulty of several dealers to get 1911 models, which they wished to enter, in time," but now that these drawbacks have been dissipated, it is hoped that the trade will respond generously with entries, as it usually does, and incidentally bring along well filled wallets in order to leave pleasant memories with the bonifaces. Prospects of good business for the innkeepers look promising already, for at the "urgent" request of "a number of motorists who are desirous of enjoying the pleasure side of the tour" the M. C. A. has added a non-contestants division. Starting from Edgewater, N. J., on Saturday morning, 10th inst., the tourists will make Catskill, N. Y., 127.5 miles, the first day. The day's run will be through Haverstraw, West Point, Newburg and Kingston, embracing a picturesque section which affords beautiful scenery. Sunday will be spent in viewing the scenery and absorbing mountain air, these pleasures being free, and on Monday the hillclimb will be held on Kaaterskill mountain. This is near Haines Falls, 15 miles from Catskill. Immediately after the climb a quick run will be made to New York to get in before dark.

### Syracuse Fair Offers Cash Purses.

Entry blanks are out for the fourth annual automobile race meet to be held in connection with the New York State Fair at the fair grounds, Syracuse, N. Y., on Saturday, 17th inst. Nine events are carded, the feature being a 10 miles open for stock cars under 450 cubic inches, which have been sold by Syracuse dealers and are driven by Syracuse owners. The winner of this race will receive a silver trophy valued at \$200. Time trials also are billed, and an incentive for fast going is provided in the shape of \$100 to the driver turning the mile under 50 seconds. The meet will be held under the joint auspices of the Syracuse Automobile Dealers' Association and the Syracuse Automobile Club, and C. Arthur Benjamin, will, as usual, act as stage manager. Robertson and DePalma are expected to be present, and among the officials will be Colonel Roosevelt and Lieutenant-Governor White.

## FUN IN ST. PAUL'S GUESSABILITY

**Tire Blow Out Helps the Mayor to Win First Prize—The Officials Perform Their Duties Without Worry.**

The first but not the last sociability tour of the Automobile Club of St. Paul was held Saturday, 27th ult., without fatalities. Mayor Keller was the winner of the first prize, of copper, thanks to a blow out on one of the tires on his car, which was No. 3, although he had asked to be given No. 13. By way of explanation it should be added that quick time was not an element in the contest, the winner being, in fact, the best guesser, and the event, therefore, of the secret schedule variety. The official "answer" to all the contestants' guesses called for one hour and thirty minutes. The mayor's time was one hour, sixteen minutes.

The fastest time was made by W. C. McCurdy, 54 minutes, 25 seconds. During his Oley Barnfield demonstration he lost his hat, but even at that was not allowed a prize. The second prize went to Dr. W. D. Kelly. He received a cord of wood, which will go to some needy family or charitable institution. The other awards were cigars and candy. Mrs. Walter J. Hill received some of the latter because she was the only woman to drive her own car in the contest.

The affair was a burlesque on a reliability tour with all the bad features and not one of the good ones of the endurance contest. The start was made from a local hotel late in the afternoon, the objective point being the Anchorage, the summer home of the club at Lake St. Croix. The entry fee was fixed at the price of the table d'hôte dinner, which was served to 150 persons, along with songs by a quartet. The officials, who had nothing to do, were: "PieLot," J. T. McMillan, Jr.; "Spacemaker," A. W. Lindeke; referee, Jesse Gregg; official timer, H. E. Bigelow; chief disturber, Charles W. Farnham; chief checker, George W. Woods; chairman contest committee, Theodore W. Griggs.

### Harding to Drive for U. S. Motor.

With the announced decision of the United States Motor Co., to maintain a contest team, Columbia, Maxwell and Stoddard-Dayton cars, which are made by its constituent companies, will be prominent contenders in all the big road and track events in future. Hugh Harding, the well-known driver, who has participated in the Gordon Bennett, Vanderbilt and other classics, will be the star of the team which will be under the guiding hand of Contest Manager Mortimer Reeves. Harding made his American debut in the 1906 Wilkesbarre hill climb, with a record for the course.

## COLUMBIA HAS TWO NEW MODELS

Thirty-eight Horsepower Car an Innovation—Mark 48 is Improved—Closed Front Bodies Predominate.

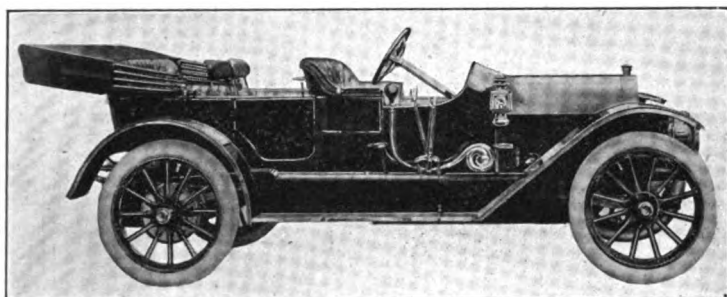
In addition to producing its "Mark 48" car, which has been a distinct model since 1905, the Columbia Motor Car Co., Hartford, Conn., is to build hereafter a second and larger car to be known as "Mark 85." The announcement is doubly interesting because it comes from one of the oldest establishments in the industry and because it is the first declaration of policy made since the company was merged in the big

tions. The general craftsmanship of the designs is plainly apparent from the accompanying illustrations, from which it will be seen that, while conforming to the same general principle, they have been worked out individually. The six passenger roadster is the distinct innovation of the series, being original with the Columbia designers. It is really an extension of the four passenger roadster, and it possesses the advantage, in certain respects, that the tonneau seats are removable so that, if necessary, the car may be used for carrying four passengers together with a considerable amount of small luggage, handily stowed inside the body.

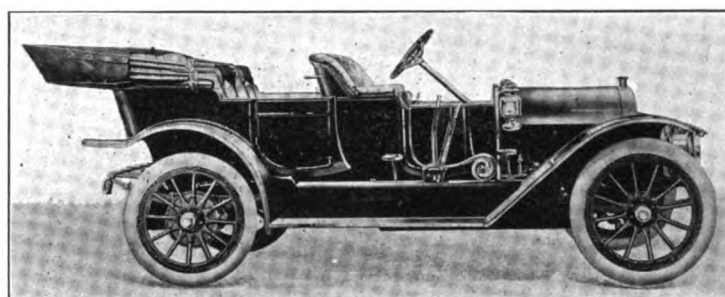
A radical feature, directly in line with the general movement among designers to

ders, cast in pairs with integral water jackets and large top cover plates, the latter being removable for inspection purposes. Also, there is the ignition system, in which the Bosch double arrangement is employed. This system permits the use of either high tension magneto or storage battery with two sets of plugs, and so complete is the independence of the two systems that either may be used independently of the other, or both simultaneously, according to the position of the lock switch.

The cylinder dimensions are  $4\frac{7}{8}$  by  $5\frac{1}{2}$  inches, bore and stroke. The motor is suspended from the frame by four hollow, square legs, through which extend breather pipes, for crank case ventilation, properly



THE NEW SIX PASSENGER ROADSTER BODY



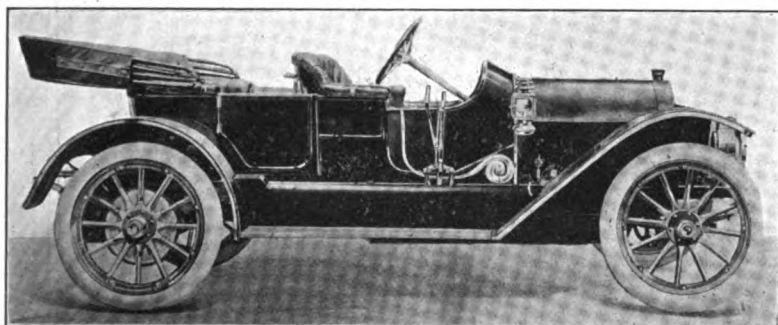
NEW COLUMBIA MARK 85 TOURING CAR

enterprise of the United States Motor Co. Both cars are of the four cylinder variety and similar in many respects, their respective horsepowers being 32.4 and 38, by the accepted formula. Each will be turned out in a variety of body styles, both in open and closed conveyances.

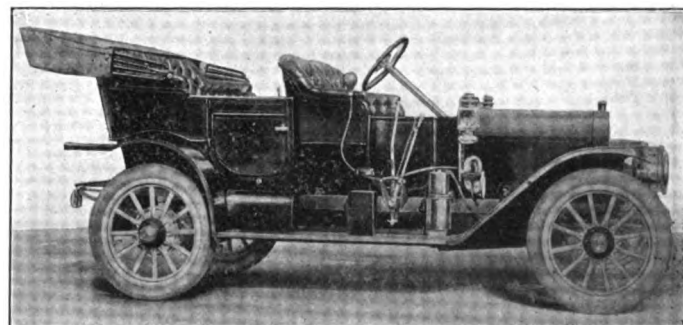
In developing the new style carriage work the closed front form has been adhered to. But it is pointed out that this

remove from view necessary encumbrances is the manner in which the gas tank and tool box have been concealed. Instead of being brought down beneath and behind the running board brackets, the filler strip, which encloses the under structure and serves as a mud splasher, is carried out horizontally for a short distance and dropped vertically to the rear edge of the elongated step. The effect of this is to pro-

screened to keep out dust. The lubricating system employs a gear pump of 15 pounds pressure capacity, that forces the oil from a reservoir in the base through a distributing main, from which it is tapped off to the various bearings. The system includes a generous feed to the timing gears that takes the form of a continuous flow. All surplus oil is drained back to the base, to be filtered and used over again. A



MARK 85 FOUR PASSENGER ROADSTER MODEL



MARK 48-5 FIVE PASSENGER TOURING

by no means is as novel a form for Columbia cars as it is for some others at this time, since it was standard equipment last year, and was first introduced fully two years ago. The bodies display distinct originality of line and are free from the crudity that sometimes is manifested in the draughting of the modern compromise between the torpedo and the stereotyped touring car.

In the mark 85 line are four and six passenger roadsters, a seven passenger touring car, and limousine and landaulet construc-

vide ample space under the frame sills for carrying the appurtenances referred to.

The mark 48 lot 5 cars likewise are equipped with closed front bodies, and likewise are produced in closed form for winter and general town service. The standard form accommodates five passengers. Their construction is the standard sheet metal with wood reinforcements.

In the construction of the chassis for the new, and larger, car, several departures from former practice have been introduced. There are, for example, the T-head cylin-

special lead to the dash enables the working of the system to be observed through the medium of a sight feed glass.

The master clutch is of the ordinary cone type, but instead of being leather-faced, as in former Columbia practice, it is covered with asbestos fabric, which enables it to seat readily and which is proof against charring as a result of overheating. This material has the added advantage that it is readily obtainable in case replacement of the friction surface becomes necessary. The linkage is powerful, so that light pres-

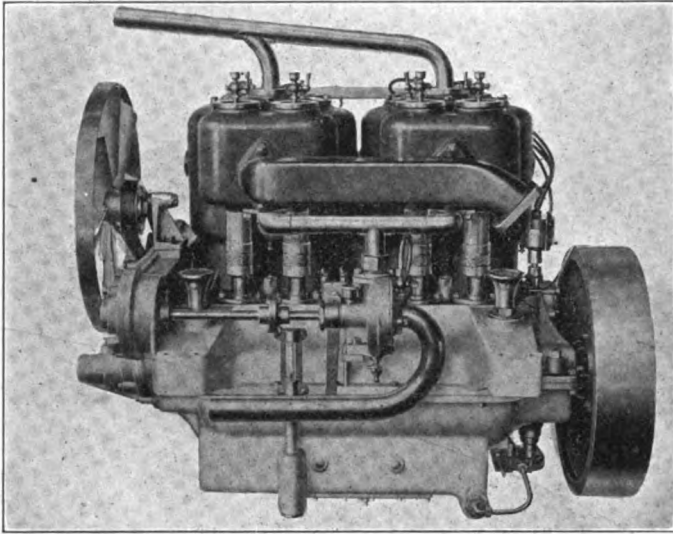
sure is sufficient to control the car, while the pedals, which are of the disappearing type, are made adjustable.

The change gear is of the same general pattern as has been in use on cars of this make for six or seven years. It affords three forward speeds, selectively obtained through the use of a gridiron seg-

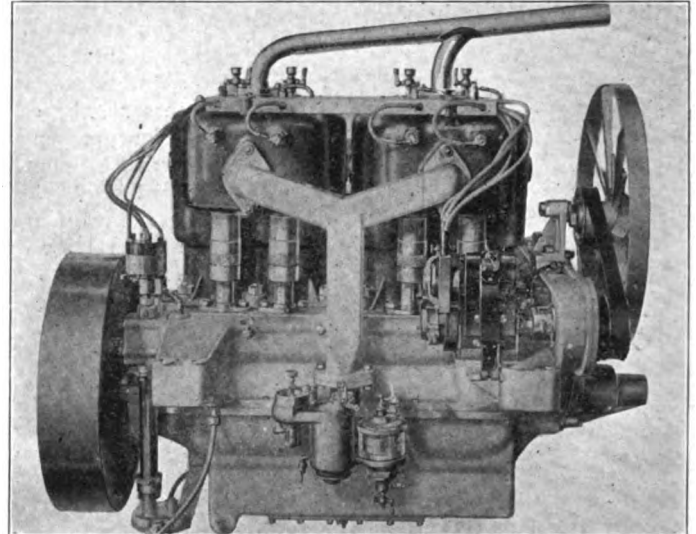
two, completely housed. The wheels are 36 inches in diameter, shod with 4-inch tires, on the four and six passenger cars, and 4½-inch tires on the seven passenger touring equipment and the closed cars. The wheel base is standardized at 120 inches.

The mark 48 lot 5 motor, as heretofore,

selective sliding gear-set, multiple spline construction for the sliding joint of the propeller shaft, and full-floating, Timken-mounted rear axle, comprise other mechanical essentials of this machine. Save in one or two instances already noted, the chassis is much the same as heretofore. Its wheel base is 115 inches, and its wheels



LEFT SIDE OF NEW COLUMBIA MOTOR



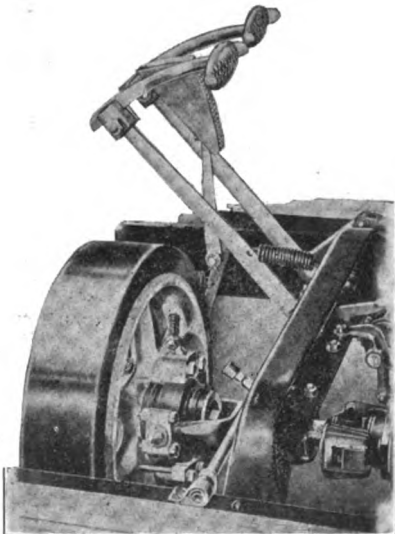
RIGHT SIDE SHOWING VALVE HOUSINGS

ment, and is noteworthy for the short lengths of unsupported shaft, both in driving and lay members. The rear axle, of original design, is of the full floating type, mounted on Timken roller bearings, driving through dove-tailed hub flanges, and anchored to the chassis by torsion bars.

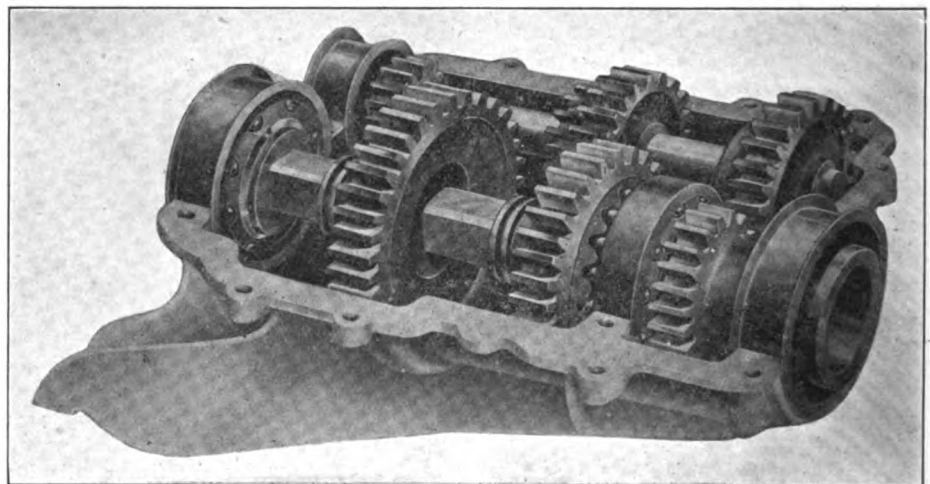
has both sets of valves mounted on the same side, and is equipped with make and break ignition with Bosch magneto as regular equipment. It also has an added high tension system employing the Exide storage battery and single, non-vibrator coil with enclosed timer. As is true of the larger motor, the valve stems and springs are enclosed by a neat and practical hous-

are 34 inches in diameter, shod with 4-inch tires.

The new car is fitted out with demountable, "Q.D." type rims, as a matter of standard equipment, and also a full set of shock absorbers. The inclusion in the list specifications of oil and gas lamps, with Prest-O-Lite tank, trunk rack, tire irons, tools and tire kit, in addition to the mag-



NEW CLUTCH ARRANGEMENT



COLUMBIA GEARSET SHOWING SOLID CONSTRUCTION

The differential and driven bevel gear and the driving pinion, with its roller bearing, form two separate and removable units.

The spring suspension is of the semi-elliptic order, and the frame is raised at the rear in order to give a very nearly straight line drive for the propeller shaft, and to reduce the amount of working in the universal joints, of which there are

ing. The pump for the automatic engine oiling system is driven by bevel gears from the rear end of the single cam shaft. The crank case compartments are constantly supplied by independent feeds, which are subject to individual adjustment from the outside of the engine.

Leather-faced cone clutch, with relieving springs introduced beneath the leather,

neto, is common to all body equipments on both sizes of chassis.

#### To Emphasize Price of New Model.

The Nordyke & Marmon Co., Indianapolis, Ind., is anxious to have it clearly understood that the price of the new Marmon "32" car is \$2,750, and not \$2,700, as has been stated.

**MAKES THE TIRE CHANGING EASY**

**Continental's New Gilbert Type Detachable Demountable Rim—Details of Its Construction.**

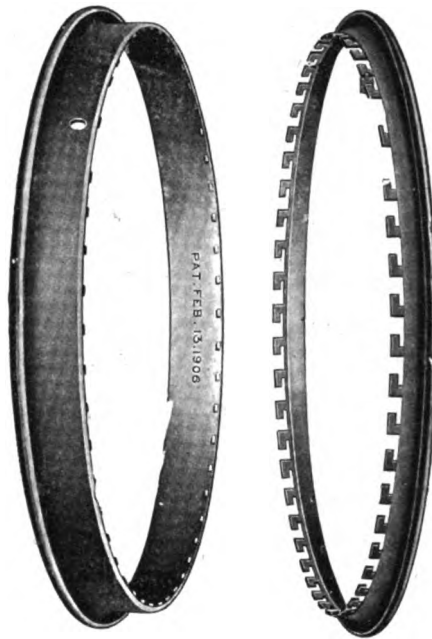
Demountable rims that, complete with tire, may be put on or taken off the wheel and that themselves are separable so that old tires readily may be taken out of them and new ones put in, without the tugging, manipulation and straining effort that occasionally is necessary with a plain clincher rim even when it is demountable from the wheel—all this is what is provided in the new Gilbert type Continental detachable demountable rims which have been brought out by the Continental Caoutchouc Co., of New York.

In making it possible for the whole rim and tire to be taken off the wheel in case the tire is punctured or injured and to replace with a rim carrying a fully inflated tire, the demountable rim system, as introduced a few years ago, afforded great relief in providing a means to minimize the work that might be necessary on the road, but where the demounted rim was of the plain clincher type, there still remained the bothersome task of gouging the deflated or injured tire from the rim itself in order to prepare it for future use with a new tire. This latter task is what the new Gilbert type rim simplifies. It does it by having the two sides of the clincher rim separable when the need arises, permitting the removal of one side and the easy lifting out of the tire.

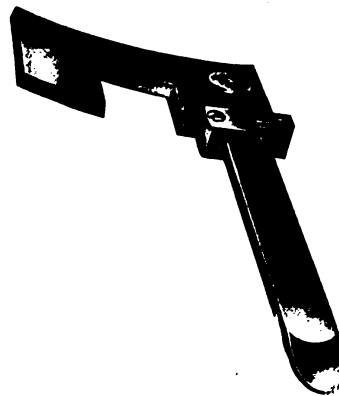
The construction of the rim is shown in the accompanying illustration, the studs and fret work on the inner periphery of the two sides forming a complete locking system all around. They are engaged or released by the rotation of the two sides of the rim in relation to each other through a movement of about three-quarters of an inch. For this purpose a special tool is provided, shown in the lower illustration. When placed on the inner face of the rim, the notched plate of the tool fastens to the wider portion of the rim, while the handle part fits between studs on the narrower side, so that when the handle is moved the two sides are forced to rotate in opposite directions, either to engage each other or to disengage, according to which way the handle is pushed. When the two sides are united, after the putting in of a new tire, a small lock-block folds into a recess between the interlocking hooks and studs, making impossible any movement of the two in relation to each other and insuring a rim that in effect is as though it were of one piece.

In addition to being offered by its originators, the Continental company, the rim has been adopted by the United Rim Co.,

as the latter's "standard universal rim No. 3," from which it follows that it will be recommended and sold not only through the branches and agents of the Continental company, the Hartford Rubber Works Co., Morgan & Wright and the G & J Tire Co., but also by the Diamond Rubber Co., the B. F. Goodrich Co. and the Goodyear Tire & Rubber Co. It has been adopted as regu-



lar or partial equipment by over 20 makers of cars and will be supplied as an extra charge option by over six times that many other automobile manufacturers. Any type of tire, including clincher, quick detachable or Dunlop, may be used, rubber fillers in the clinch beads being employed for the



Dunlop type and valve spreaders on the tubes in the case of the Q. D. type.

**Band Brake Stops Fire Engines.**

In a recent test of the Duplex band brake, as used on the horse-drawn fire engines of Bridgeport, Conn., it was found that a pressure of but eight pounds on the pedal was sufficient to stop the heavy engine within its own length on the steepest hill in Bridgeport. The brake, which is made by the Royal Equipment Co., is the first band brake to be used on horse-drawn vehicles.

**OIL FILTERED AS IT CIRCULATES**

**Al-Ton's System Operates on the Car—Self-Cleaning Crank Case Arrangement is Provided.**

A marked improvement in engine lubrication systems has been brought about during the last two or three years as a result of the adoption of automatic circulating systems, in which the oil is passed through strainers, after being used, and is not again returned to the bearings until it has been allowed opportunity to settle. That even this method is not capable of purifying the oil entirely, however, a moment's consideration will show; and in consequence there has recently been introduced a new oil-cleaning system which is designed for application to any motor, and which is intended to free the oil in circulation of certain classes of detritus which the ordinary straining process cannot remove.

The system in question is the invention of H. F. Maranville, for 20 years a large manufacturer of oil filtering and lubricating systems, and is produced and marketed by the Al-Ton Motor Accessory Co., Akron, Ohio, under the name of the H. F. M. oil filtering and lubricating system. In principle, the system is merely a specialized application of methods which long have been in use in large systems where continuous circulation of oil is maintained for lubricating purposes. The filter itself is constructed in the form of an attachment, which may be applied to any motor which is equipped with a circulating system of oiling. In addition to this a special form of self-cleaning crank case has been devised, which is arranged to remove from the crank pit sediment of the heavier order, which ordinarily would not be carried through to the filter by the oil.

A large proportion of the automobile engines now in use are oiled by some form of circulating systems. Most of the systems in use have the advantage of providing a copious flow of lubricant and in that way tend to keep the bearings free from sediment and other foreign matter. At the same time, they possess a common defect in that the used oil constantly is returned to the main reservoir, so that during the service of the car, and between the rather infrequent periods of overhauling, there is a constantly accumulating mass of carbonized oil, dust, dirt, core sand and bits of metal which settles over the strainers and also permeates the oil to some extent.

The result is a higher rate of wear in the bearings than otherwise should be expected. The general effect is to reduce the efficiency of the oil and to charge it with an increasing proportion of impurities as time goes on, since the sediment is constantly accumulating, while fresh oil is

added only in relatively small quantities. Obviously there is no remedy for this difficulty with the average system, save that of completely scouring the crank case and the entire oiling system at frequent intervals. The filtering system in question is devised to obviate this objectionable feature as far as possible.

Its general construction is shown by Fig. 1, which is a sectional view. As will readily be seen, the oil, after passing through the bearings, is raised to the top of the filter where it first passes through a fine screen, having a removable sediment

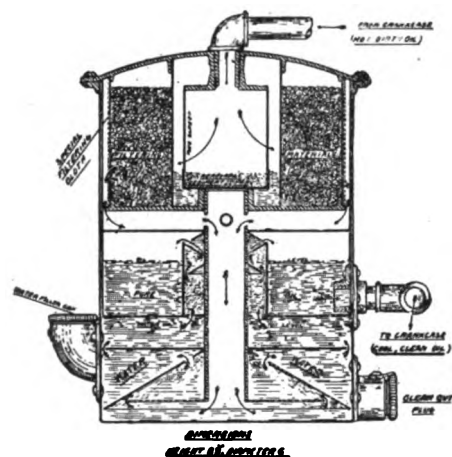


Fig. 1

cap at its base to facilitate cleaning; then through a cylinder filled with granulated bone black and a ply of special filtering cloth. It then flows down a central tube and through the water compartment, where it is washed perfectly clean and cooled and rises through a water separator and splash arrester into the pure oil reservoir, from which point it is returned by gravity to the crank case.

A simple method of mounting the arrangement on the front side of the dash board, and the manner in which it is connected into the ordinary oiling system, is indicated by Fig. 2. An alternate arrangement is that in which the filter is mounted alongside the cylinders, where the temperature of its contents always is held sufficiently high to prevent the oil from congealing even in very cold weather. The method of connection to the engine base, of course, is substantially the same in either case.

While this arrangement suffices to remove from the oil that is in circulation all impurities that would tend to abrade the bearing surfaces, there are some conditions under which it is not wholly adequate. In conducting experiments preparatory to completing the design of the filter it was found that, while the filter would remove the foreign matter from the oil passing through it, the design of many crank cases is such that there is practically no means of removing the heavier particles of sediment such as are very apt to accumulate. Besides tending to clog ports and ducts and

so to interfere with the normal flow of the oil under the cranks, where splash is relied upon the tendency is to stir up the foreign matter and throw it against the cylinder walls. Hence the development of the self-cleaning crank case.

Figs. 3 and 4 show alternative arrangements for this purpose, in which provision is made for the settlement of the used oil

amount of attention, while their use should more than repay the cost of installation, through the reduced oil consumption and the saving in bearing wear.

#### Tire Data in a Wall Hanger.

Tire information in plenty is provided in a wall hanger for garage display, which is being sent out by the Firestone Tire &

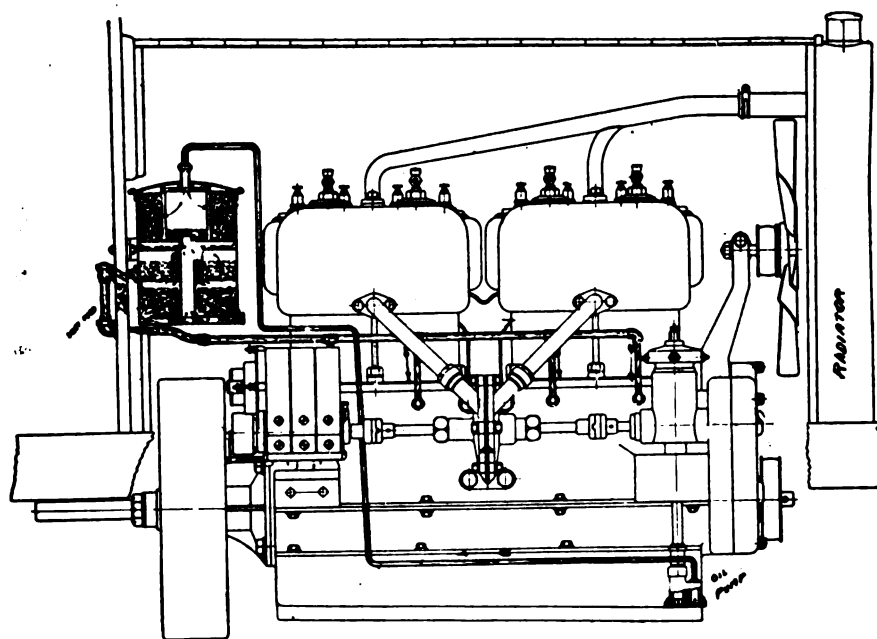


Fig. 2

before it leaves the case to be filtered, the heavy foreign matter being pocketed and permanently retained. By this means, all sediment not held in suspension in the oil is removed from circulation. The capacity of the sediment traps is such that even though they should not be cleaned out oftener than once a year the crank pits

Rubber Co., of Akron, Ohio, and copies of which may be obtained on request. The hanger not only illustrates and describes the various types of tires that are in use and the rims that they will fit, but also gives a list of tire sizes and the corresponding air pressures to which they should be inflated for the best results. Of special in-

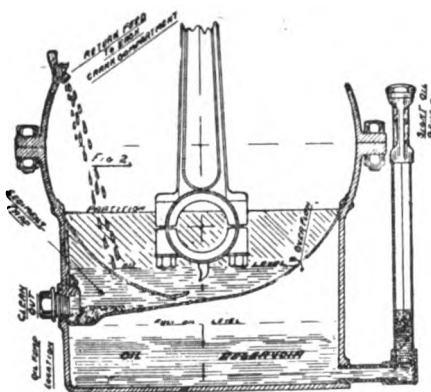


Fig. 3

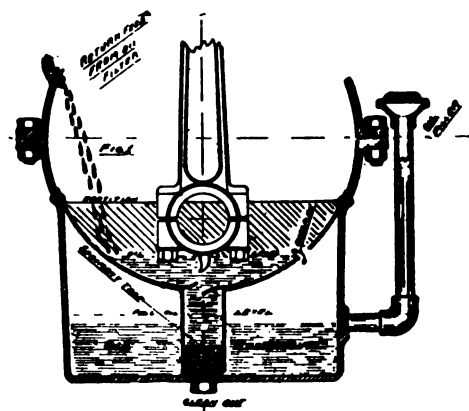


Fig. 4

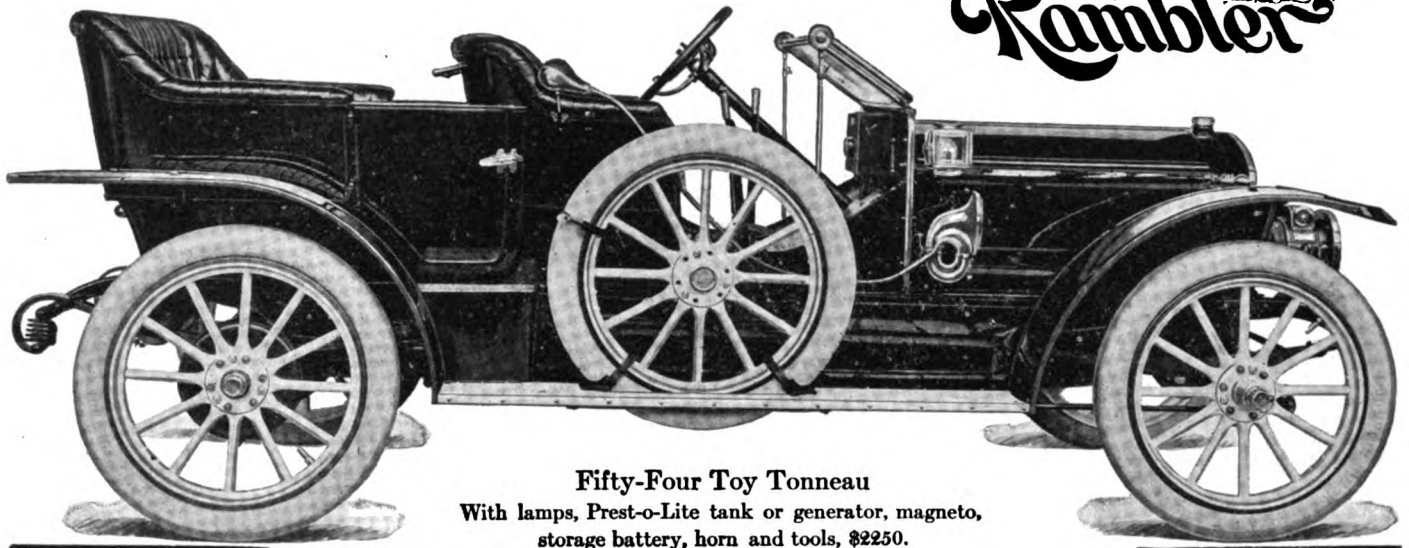
would be kept free from impurities. The arrangement is designed to keep a constant level of oil in each compartment of the case, up to a 15 per cent. gradient in either direction.

Either the filter or the self-cleaning crank case may be used independently, or the two may be applied in conjunction. Obviously neither should require any great

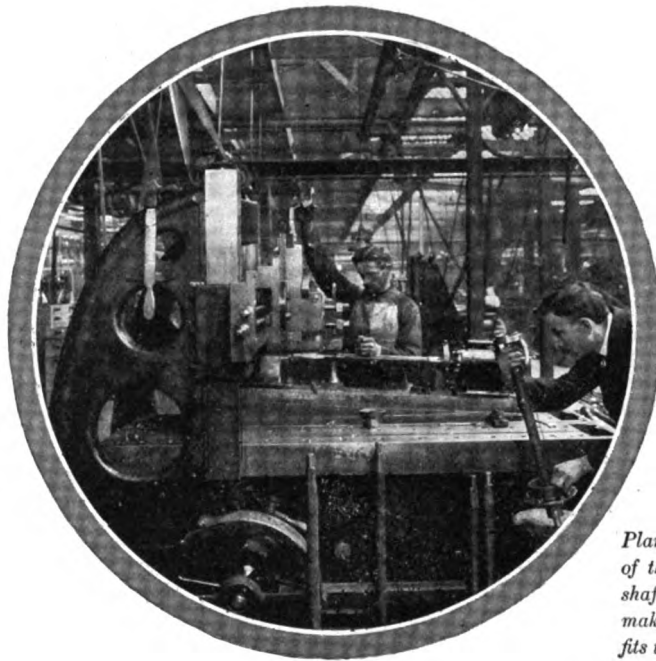
terest to motorists whose tires are not large enough for the load is a list of 11 oversize Firestone tires. These are interchangeable with standard size tires, but are built considerably heavier and contain from 30 to 50 per cent. more cushion of air, adding greatly to the easy riding of the car and in many instances reducing the ultimate tire cost.



# Rambler



**Fifty-Four Toy Tonneau**  
With lamps, Prest-o-Lite tank or generator, magneto,  
storage battery, horn and tools, \$2250.



*Planing the squared portion  
of the Rambler rear axle  
shaft and gauging it to  
make sure that it exactly  
fits the hub.*

Every Rambler part is finished with perfect accuracy and many special machines designed and made to suit Rambler needs are employed to insure quality. Inspection is complete at every stage and every part is gauged by an expert before being passed.

## The Thomas B. Jeffery Company

Main Office and Factory, Kenosha, Wisconsin  
Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco

## "TAXIS" WITHOUT TAXIMETERS

**Inspectors Discover Many New York Motor Cabs Minus the Instruments—Two Driver Operation Forbidden.**

Although a "taxicab" is supposed to be a motor cab provided with a self-registering apparatus which shows the amount of the fare to be paid for its use, recent discoveries by the New York taximeter inspectors show that this by no means is an essential in the definition of the word. In other words, there are at present, and have been for some time, so-called "taxicabs" operating at the piers and ferries along West street, New York City, which have no meter or any other self-registering apparatus at all; the owners or drivers of which charge the regular four-seated cab fare (\$1 per mile) instead of the 40 cents for the first half mile and 10 cents for every additional quarter mile, allowed under taxicab regulations.

A great number of complaints had been received from persons entering the city on Sound steamers and the Jersey railroads, and Inspectors Drennen and Bagley started an investigation. They discovered, in addition to a number of irregular and unstamped meters, that most of the "taxicabs" at the ferries were running without any meters at all. Nearly all of them are operated by hackmen who were driving horse cabs before the advent of the "taxi." The inspectors were powerless to stop the operation of these cabs, as they were licensed under what is known as the coach ordinance, which permits vehicles carrying four persons to charge at the rate of \$1 for the first mile. As the "taxis" are able to seat four persons they come under the provisions of the ordinance.

Another irregularity which the inspectors discovered was of a different nature. It related to the seating of two drivers on the one taxicab. Inspector Drennen contends it is the two man taxis which are responsible for the crooked work occasionally said to be practised on the patrons of the taxis. One man operates the machine, while the driver operates the meter, which is said to be usually against the passenger. It is in this class of taxis, too, that many people have been run into lonesome streets and held up. The police have been instructed to prevent the operation of a taxicab having more than one driver on the box.

### Tags Tested by Hammer and Acid.

In contrast with the notoriously shabby license tags supplied to automobile owners in New York state are those furnished by Ohio to its motorists. Secretary of State Thompson, after hearing of New York's experience and having had some of his own with the tags used this year, which were not quite satisfactory, decided that next year's

tags were to be worth the money paid for them. He therefore asked for public bids, and the samples submitted by five competing firms were subjected to rigid tests by experts.

The enameled plates were given a boiling water test, boiling acid test, and acid vapor test and an impact test.

The impact test was a succession of blows from a hammer weighing a kilogram. The first plate broke after 25 blows, the second after 40, the third after 50 and the fourth after 60. It took 100 blows to break the plate which was selected.

The contract was awarded to the Ingram-Richardson Manufacturing Company of Beaver Falls, Pa., at 31 cents a pair, which is two cents cheaper than the state paid for the tags at present in use.

Nobody has had the temerity so far to ask Mr. Koenig how much the New York tags cost to manufacture and how much the state paid for them. It is certain that no tag of the Empire State would have stood half a dozen blows from a hammer without losing most or all of its numbers and cracking in all directions.

### Tire Thieves Lose a Wagonload.

Alertness and a capacity for not being "bluffed" enabled Policeman English, of the Philadelphia force, to save \$1,000 worth or more of tires for the garage of the Premier Motor Co., 2017 Sansom street, in the Quaker City, when he found two men with a horse and wagon loading tires into the vehicle at about 6 o'clock in the morning. The men already had diverted the suspicions of one passing citizen by speaking politely to him.

"It's pretty early for us to be working," said one of the thieves, "but our boss told us that it was necessary to get this stuff to the other store before the customers got around."

When the officer came along, the man outside by the wagon started to give him the same "spiel," but the officer looked too forbidding. Making a dive into the store, the fellow warned his companion that a "cop" was outside, and the two made their escape through the back window of the store, pursued by the policeman. He was unable to catch them, but took possession of the wagon load of tires until the bona-fide garage employees arrived.

### Delaware Enjoys New York Privilege.

According to a ruling by Secretary of State Samuel Koenig, who bases the same upon the opinion recently handed down by Attorney-General O'Malley, only Delaware automobiles of those from all the eastern states can be run in New York State without procuring a New York State license. Western states which enjoy the same privilege are Illinois, Indiana, Iowa, Kentucky, Michigan, Nebraska, Ohio, Oregon, South Dakota, Utah, Washington and Wisconsin.

## TROLLEY MEN TO REPORT THEM

**Motorists Must Not Pass Street Cars at Speed in Connecticut or Massachusetts—States to Co-Operate.**

Owing to a number of accidents with automobiles which persisted in passing stationary electric cars at a speed greater than three miles an hour, the State Department of Connecticut has taken up the matter and has asked the co-operation of the trolley companies, in its endeavor to catch the offenders. In the very nature of things the motormen and conductors of trolley cars are the most likely people to take notice of such violations of traffic regulations, and the manager of the Connecticut Co., the largest of the trolley companies, has caused to be posted the following order to its employees:

"In the event of a conductor observing such a violation of the speed laws, the conductor must make a written report to the superintendent, giving the location, direction the machine and car were going, the license number of the machine, estimate of the speed at which the machine was traveling and any other facts. Also get names and addresses of witnesses."

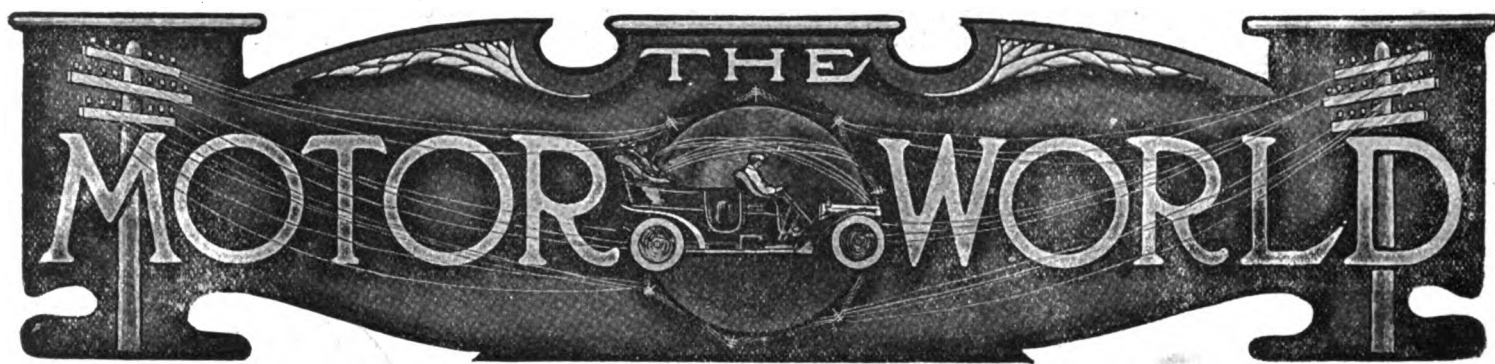
The Massachusetts authorities also have signified their intention of aiding Connecticut in suppressing this particular kind of speed violation, and ask that the Connecticut authorities render the same service to them when Connecticut drivers violate the speed regulations while within Massachusetts boundaries.

### Jersey Tags in Rah! Rah! Colors.

That university colors could be utilized for something else than provide an excuse for college yells, is a fact which J. B. R. Smith, commissioner of motor vehicles of the State of New Jersey, is endeavoring to prove. Having chosen orange and black, the colors of Princeton University, as the official license tag colors for 1910, he now announces cardinal and gray, the colors of Stevens Institute of Technology, as his choice for 1911, while 1912 cars will sport the scarlet of Rutgers College in combination with either white or black lettering.

### Maryland Grants Reciprocal Privilege.

Following the enactment of Pennsylvania's new automobile law, reciprocal relations have been established between that state and Maryland. State Highway Commissioner Joseph W. Hunter, of the Keystone State, has been informed by Governor Austin L. Crothers, of Maryland, that cars carrying Pennsylvania license tags may be operated in Maryland for periods not exceeding ten days without the requirement of special licenses.



## GENERAL MOTORS MUST RETRENCH

Expansion Plans Disapproved by Bankers  
—\$2,000,000 is Raised in the East  
to Help Buick.

Retrenchment now is to be the policy of the General Motors Co., and the glittering plans for big extensions in Detroit, in Saginaw and elsewhere have been put in the refrigerator, in accordance with the dictates of banking interests who are in a position to insist on a contraction of the company's operations. This reversal of the General Motors announced program is more or less the direct result of the fact that the "wizard" of the enterprise has had to modify his plans in order to borrow money to finance the Buick Motor Co., the affairs of which are in such shape as to require a large amount of ready cash to avoid embarrassment.

After trying Detroit's banking interests and not meeting with the lending enthusiasm that had been expected, the "wizard" held a conference in New York on September 1st with some eastern bankers, and succeeded in arranging for a loan of \$2,000,000, divided among five banks, two of which are in New York City, two in Boston and one in Chicago. This money, together with some \$1,000,000 or more that the Buick company has available for paying off its obligations to the trade, gives that company means for getting in better shape than it was.

The first session of the conference, in the morning, was not particularly resultful except in developing disagreeing views between the "wizard" and the bankers as to the wisdom of General Motors expansion plans, but a later conference found the wizard more tractable to the bankers' ideas that retrenchment and not expansion is the better policy if loans are to be negotiated.

It is the bankers' view that there has been overproduction in the case of at least one of the General Motors cars, but that

by means of the concessions in prices which are being made for a rapid bringing in of cash and with the money that now has been borrowed, the company will be able to fortify itself in a stronger position, provided retrenchment and economy prevail in its operation.

Although efforts have been made in some quarters to create the impression that "the Morgan interests" have come to the rescue and stand ready to supply necessary money, the loan that General Motors was able to negotiate is not known to have any relation with Morgan money, as the five banks in question are not in the Morgan camp. Rumors that the reorganization which General Motors is undergoing involves either a merger or an alliance with the United States Motor Co. also are authoritatively denied. Because of the situation in which General Motors at present finds itself, the heretofore aggressive General Motors Securities Co., which has had the task of finding a market for General Motors stock certificates, has ceased its campaign, explaining to inquirers that the present dullness of the stock market and depressed financial conditions constrain it not to endeavor to push General Motors shares at this time.

### Staver Separates its Interests.

The Staver Carriage Co., of Cincinnati, O., making the Staver car, has formed a separate corporation for its automobile interests. The new company, which is incorporated under Ohio laws, is known as the Staver Motor Car Co. At a meeting of the stockholders the following officers were elected: George W. Platt, president; Parker K. Gale, vice-president; Stanley M. Adams, secretary; L. K. Emerson, treasurer.

### Belmont Revived in Castleton.

The Belmont Automobile Co., of New Haven, Conn., the assets of which were sold at auction not long ago in the winding up of its bankruptcy, is to be revived in Castleton, N. Y., where it originated. Factory space has been taken in the building of the A. C. Cheney Piano Action Co.

## MAKERS KNOW WHERE THEY STAND

Have Facts that Discount the Belated "Hotel Lobby" Panic—Eye Opening Discoveries as to Demand.

Uneasy and almost panic fears that exist in some minds as to the immediate future of the automobile business as a whole do not seem to be justified, but are the morbid developments of the "hotel lobby circuit," according to observations and investigations by a tradesman who has peculiar opportunities for keeping in touch with conditions as they actually are and for sounding the real views of the executive heads and sales managers of the bigger companies. Having probed directly for the facts during a trip which he has just completed, he declares that while there is something of a "shake down" period in progress, the true situation is quite different from what even some of the "wise ones" imagine, and that the main cause for such present alarm as exists is to be found in what may be described as "too much wizardry."

"Unlike most business propositions," he declares, in giving the Motor World the results of his information-seeking journey, "it is difficult to reduce conditions of confidence or of panic to statistical terms so that one may be weighed against the other in mathematical exactness, but it is possible to learn who is and who is not frightened and to determine the soundness of their reasons for fear or confidence. On this basis I can say that the big men of the trade see things much more clearly and through an entirely different tint of spectacles from some of the hotel lobby alarmists.

"Every thinking man in the trade knows that a shake down was inevitable at this time, and with few exceptions the big fellows provided for and discounted it months ago. Trade observers in the cities have awakened to the fact that some of the

agents or branches in the larger places are not doing the enormous business that in a way had been expected, and have come to the conclusion that some grave situation confronts the makers.

"With production apparently mounting to the full limit of the demand, the makers have been keenest of all in finding out where they stand. In a spell of conservative caution, a good many of them wrote to their agents advising the latter to be careful not to bite off more than they could chew for the 1911 season and to order no more cars than they could be sure of selling. The caution was gracefully accepted in the case of some of the agents in the big cities, but the agents in the smaller places could not understand what the manufacturers were driving at, as their prospects of business never were brighter.

"So uniform was the experience of the manufacturers in this respect that the truth has been forced on them that the preponderance of next year's business is going to be done in the smaller cities and towns. One of the biggest companies in Detroit says that 87 per cent. of its huge output during 1911 is going to towns that are not big enough to have trolley cars. The more prominent makers have had such able and aggressive representation in the big cities and have fought in such hard competition for the big city trade, that for some time to come they cannot look for much further developments of their markets there, but the small towns are ripe for the harvest.

"Seeing that conditions are at a standstill in the big cities and hearing the wails of some of the agents in the bigger places over the fact that sales are not continuing to grow at the old rate, some of the hotel lobby observers are frightened as to the outcome, because they have no means of knowing the great strength of demand that is showing itself outside the big places and which in the aggregate so completely overshadows the city demand as to eclipse the latter into insignificance.

"The same sort of fear having assailed the manufacturers long before it did the outsiders, they modified and trimmed down the expansion plans which most of them had entertained, and in many cases will not make any more cars than for 1910. This limitation of output, in the face of the prodigious demand which has been discovered in the districts outside the large cities, gives promise of resulting in an excellent balance of supply and demand next year, instead of a glutting of the market.

"It is true that the time has arrived when the manufacturers must give more thought to expanding their markets than to expanding their production. They have applied themselves to this selling task in good time, and the great field which they have discovered outside the cities gives them as sure a guarantee as they could wish for that they will have plenty of business next year. Those who enjoy a good

name and a reputation for producing good cars have no reason whatever to fear for an inadequate market for 1911.

"Disturbing conditions have been presented in ill-advised manufacturing attempts on the part of a number of new concerns in Detroit and in individual over-production by a Michigan concern which has found it necessary or seen fit to slash its own retail prices all over the country in order to move its output and get money. The offering of such cars at cut prices has had its effect in creating uneasy sentiment, and the difficulties that makers who have over-reached themselves have had with the bankers has brought unpleasant consequences on the trade in general. These things, however, have assisted in determining the majority of the makers on conservative limitations of production, and in making it clear that new makers cannot come into the field successfully unless they have offerings of some exceptional merit or of a specialized character to meet some particular demand that is not already provided for. With production thus kept down, and a rich market opened to the established manufacturers, the latter, with the orders already on their books, regard the belated hotel lobby panic as an amusing but unimportant phenomenon."

#### Broadwell Gets a Great Send-off.

Other men in the trade who were about to make a change of base have been given "send-offs," but it is doubtful if any of them ever received a more royal one than was tendered Edward H. (Ned) Broadwell on Thursday evening last, 1st inst., by his fellows of the New York trade. The day before, Broadwell had laid down the vice-presidency and New York management of the Fisk Rubber Co. to take up the vice-presidency and sales management of the Hudson Motor Car Co., which change required that he take up residence in Detroit.

He long ago had made himself uncommonly well known and well liked in the metropolis, and on the eve of his departure a few of those—to the number of nearly 100—who know and who like him joined hands to make his going memorable. It proved a send-off which Broadwell is unlikely ever to forget. It took the form of a farewell banquet at Churchill's. There was much that was good to eat, much that was good to drink and much that was good to listen to. There were speeches by E. R. Hollander, Alfred Reeves, A. G. Batchelder, E. R. Rockwell and former Senator Slater, and they all breathed tribute to the good fellowship and business worth of Broadwell. There also arrived during the banquet a flood of telegrams from absent friends expressing their best wishes for the guest of the occasion, the sentiments literally crystalizing in the form of a diamond ring which, through President Wyck-off, of the Motor Racing Association, who presided, was presented to Broadwell as

concrete evidence of the appreciation in which he is held. As a climax, he was placed on a table and lifted to the ceiling while the banqueters joined hands and performed a "ring around the rosy" dance in his honor.

Nor did the honors to Broadwell end at the banquet. On Saturday when he strolled into his old place, the Fisk branch, to say good-bye, he was held up by Louis N. Mansuay, of the sales staff, who in the name of the employes presented him with a hundred dollar cut glass punch bowl.

#### Canadian Ford Pays 100 Per Cent.

Stockholders in the Ford Motor Company of Canada, Ltd., of Walkerville, Ont., have received a cash dividend of 100 per cent. as a result of the operations of that concern during the last few years. The company started in 1904 and has a capitalization of \$100,000. There are about fifty stockholders, the majority of whom are Canadians, but the controlling interest is held by Henry Ford, president; James Couzens, vice-president, and G. M. McGregor, secretary-treasurer. Last year the dividend was 25 per cent. The company makes the same machine as that made by the parent company in Detroit. About 10 per cent. of the output goes to Australia, while New Zealand, India, South Africa and other British possessions take a share of the shipments, although the shipments of Ford cars to Great Britain itself are made from the Detroit factory.

#### Ideal Electric Completes Reorganization.

The Ideal Electric Co., of Chicago, Ill., has completed its reorganization, following the death of its president some weeks ago. The new officers of the company are: Bruce Borland, president; Edwin W. Ryerson, vice-president; Uri B. Grannis, treasurer; Cyrus H. Adams, jr., secretary, and C. J. Holdrege, general manager. The capital stock of the company has been increased to \$50,000. An office and salesroom is to be opened at 1328 Michigan avenue, Chicago, in the near future.

#### Shaler Absorbs the Stitch-in-Time.

The C. A. Shaler Co., of Waupun, Wis., has completed negotiations for the purchase of the patent rights and entire business of the Stitch-in-Time Vulcanizer Co., of Topeka, Kan. The Shaler company manufactures portable electric vulcanizers, while the Stitch-in-Time products have been chiefly gasoline heated vulcanizers of the portable type. The combining of the patent rights and business of the two concerns results in the strengthening of the Shaler company in the portable vulcanizer field.

#### Creditors Take Charge of Guarantee.

The Guarantee Auto Supply Co., 65 Cortlandt street, New York City, is in the hands of its creditors. The latter are taking steps to effect the wisest disposal of the assets.

## EXPORTS STILL EXCEED MILLION

Statistics for July Show Continued Strong Demand for American Cars—Canada Remains Heaviest Purchaser.

With the exception of France and the West Indies all the fourteen geographical divisions took more American-made automobiles during July of this year than in the same month of 1909, the figures being \$1,224,295 and \$962,243 respectively. Of this total the complete cars accounted for \$1,034,483, this being the rated value of the 761 cars exported, while the parts, not including tires, were valued at \$189,812. The number of cars exported in July, 1910, compares favorably with that of July, 1909, in which month the total number cars exported was 470.

In the list of buyers British North America still occupies the premier position, with its imports of \$465,920, as against \$361,581 in July of last year. Great Britain, with \$309,421, registers a sudden drop from the high mark of last month, \$617,371, and even compares poorly with the figures for June, 1909, when \$333,294 worth of American cars were sent to the United Kingdom. France, which only last month was the third largest buyer, dropped to sixth place, its figures for July, 1910, being \$60,038, as compared with \$102,839 in the same month of the preceding year. Germany remained stationary with its figures of \$58,420 and \$56,924, respectively, although it was pushed down from fourth to seventh position by the great increase in the trade with Mexico, Other Europe and British Oceania. The greatest actual increase was shown by Other Europe, which took \$87,639 worth, as against \$21,884 worth in the same period of last year.

The figures for the seven months ending July, 1910, show substantial gains for all divisions except France. Here also British North America leads by a big margin, with \$3,490,714; the United Kingdom is second with \$2,081,977; France holding its third place with \$598,038. The record in detail:

	--July--		--Seven months ending July--		
	1909	1910	1908	1909	1910
Automobiles .....	\$874,685	\$1,034,483	\$3,223,166	\$4,550,019	\$7,369,486
Parts of (not including tires)....	87,558	189,812	390,775	425,870	1,272,058
Automobiles and parts of—					
Exported to—					
United Kingdom.....	333,294	309,421	1,365,561	1,508,846	2,081,977
France .....	102,838	60,038	510,758	661,071	598,038
Germany .....	56,924	58,420	123,531	139,788	235,438
Italy .....	2,068	14,296	219,136	214,345	340,119
Other Europe.....	21,884	87,639	164,554	243,881	524,375
Canada .....	361,581	465,920	692,836	1,439,930	3,490,714
Mexico .....	22,571	65,864	187,034	272,722	361,102
West Indies and Bermuda.....	18,730	14,153	105,523	175,448	247,345
South America.....	5,430	33,602	79,850	95,722	226,208
British Oceania.....	22,097	62,842	37,734	106,797	194,283
Other Asia and Oceania.....	7,585	36,452	88,273	55,691	234,155
Other countries.....	7,240	16,648	39,151	61,648	107,790
Total.....	\$962,243	\$1,224,295	\$3,613,941	\$4,975,889	\$8,641,544

## New Chain Company Locates in Detroit.

William P. Culver and A. B. Taylor, formerly of the Diamond Chain & Mfg. Co., of Indianapolis, Ind., have organized the Culver Chain Co., of Detroit, Mich., capitalized at \$50,000. Culver is the president and Taylor the vice-president and treasurer; N. P. Jones, of the Grant-Jones Automobile Co., is secretary. The company has leased a three-story building at No. 140 Madison avenue, and will commence the manufacture of roller chains for motor wagons and trucks, although it is planned subsequently to produce chains for pleasure cars, motorcycles, bicycles and machinery.

## Cothran Gets Fisk's New York Branch.

Jay B. Cothran has been appointed manager of the New York branch of the Fisk Rubber Co., Chicopee Falls, Mass., to fill the vacancy left by the resignation of E. H. Broadwell, who has become general sales manager and a vice-president of the Hudson Motor Car Co., of Detroit, Mich. Cothran is well known in the tire trade, having been connected with the Diamond and Goodrich companies previous to a recent connection with Wyckoff, Church & Partridge.

## Portage to Swell Akron's Tire Output.

The Portage Rubber Co., which recently was organized in Akron, O., with a capitalization of \$1,000,000, is to take over the business of the Union Rubber Co., of Barberton, O. It will manufacture solid and pneumatic tires and a general line of rubber goods. The directors are Will Christy, John W. Miller, James Christy, W. S. Long, Dayton A. Doyle, John Kerch, Arthur S. Mottinger—all of Akron—and Hayward H. Kendall, of Cleveland.

## Muskegon Gives Bonus for Radiator Plant.

On promise of a bonus of \$10,000, the Wright Cooler & Hood Co., of Chicago, Ill., has agreed to move to Muskegon, Mich. The plant will be located at Clay avenue and Eighth street, and the company has pledged itself to employ at least 100 men in the manufacture of automobile radiators and fittings.

## CARPLES ON FOREIGN CONDITIONS

After Three Months Spent Abroad He Finds Them Healthy and Normal—Makers Keen for Export Trade.

James M. Carples, general manager of the Licensed Automobile Dealers' Association, who just has returned from a three months stay in Europe, met the members of the United States Tariff Board in Paris on July 4th, and was appointed special tariff commissioner to investigate automobile production costs. He has finished his work on the Continent and in England and now is ready to proceed with his investigations in this country. He stated that the information which he had secured was of a confidential nature, and that he could not say, at the present time, whether or not the Government will publish it.

Speaking as the general manager of the Licensed Automobile Dealers, Carples said that he had visited every factory of consequence in France, England, Germany, Belgium, Italy and Switzerland and had found the conditions normal and healthy.

"There is no overproduction and no wild-cat schemes are on foot to discourage production and capital," he said. "The Continental manufacturer seems to be trying his best to build a sufficient number of good cars to supply the demand. His energies bent in this direction, he is not making any frantic effort to force the growth of this demand—except in one direction, export. All foreign motor car makers are anxious for export business, and give to the wants of the export trade their best attention, as well as an inducement of a 5 to 10 per cent. discount over the local trade.

"Germany and France foster the commercial or freight vehicle industry, and the development of this field under the patronage of the government have been exceedingly rapid. The subsidy offered by the government to the makers, to produce trucks that will last, has had two results: first, the makers' striving to satisfy his government, knowing he will find an outlet for his product when this is done; and, second, the government investing in these vehicles, it takes care to build good roads.

"Much has been said here about financial stringency and depression and even a coming crisis. I for my part certainly cannot see the reason for it. There is no cause for fear. It appears from my travels and investigations that the cereal crop on the Continent is a failure, and the fruit crop is absolutely ruined by the heavy rains. Large orders for delivery have already been received here, and before the end of the year the United States will be the biggest seller in the world. So, with prosperity staring us in the face, I see little cause for calamity howling."



**THE WEEK'S INCORPORATIONS.**

Madison, Wis.—Meiselbach Mfg. Co. changes its name to Crown Commercial Car Co.

Cleveland, Ohio—Hupp Motor Sales Co., under Ohio laws; to deal in automobiles. Corporators—F. Love, A. H. Homan, John Rauch.

Boston, Mass.—Boston Garage Co., under Massachusetts laws, with \$50,000 capital; to maintain a garage. Corporators—Paul M. Hubbard, J. Duke Smith.

Detroit, Mich.—Culver Chain Co., under Michigan laws, with \$50,000 capital; to manufacture automobile chains. Corporators—W. Culver, Arthur Taylor.

Duluth, Minn.—Interstate Auto Co., under Minnesota laws, with \$25,000 capital; to deal in automobiles. Corporators—W. G. Baldwin, J. T. Placha, J. A. Smith, C. S. Lawson.

Chicago, Ill.—Marion Motor Car Co., under Illinois laws, with \$10,000 capital; to deal in automobiles. Corporators—Robert E. Maypole, Alvar A. Landry, George R. Carpenter.

Minneapolis, Minn.—Stroud Carburetor Co., under Minnesota laws, with \$10,000 capital; to manufacture automobile carburetors. Corporators—B. E. Stimson, C. M. Stroud, O. W. Close.

Fitchburg, Mass.—Bickford Auto Livery Co., under Massachusetts laws, with \$10,000 capital; to deal in automobiles. Corporators—Orlando E. Bickford, Ernest C. Ford, Richard B. Lyon.

Boston, Mass.—Hodges Garage Co., under Massachusetts laws, with \$20,000 capital; to deal in automobiles and motor vehicles. Corporators—Henry B. Hodges, Chas. A. Atkins, Nellie N. Hodges.

Indianapolis, Ind.—Cecil E. Gibson Motor Car Co., under Indiana laws, with \$25,000 capital; to deal in automobiles and motor vehicles. Corporators—Cecil E. Gibson, W. R. Wheeler, I. M. Holmes.

Connersville, Ind.—Ye Motor Shop, under Indiana laws, with \$10,000 capital; to do general automobile and garage business. Corporators—F. B. Ansted, I. R. Ansted, H. M. Williams, A. A. Ansted.

Fort Worth, Tex.—Fort Worth Automobile Supply Co., under Texas laws, with \$2,500 capital; to deal in automobile accessories and supplies. Corporators—P. M. Devitt, R. M. Devitt, P. McInnis.

Chicago, Ill.—Peerless Motor Car Co. of Illinois, under Illinois laws, with \$60,000 capital; to manufacture automobiles and accessories. Corporators—Louis E. Hart, Jasperson Smith, Dunne T. McNabb.

Troy, N. Y.—Belmont Motor Vehicle Co., under New York laws, with \$25,000 capital; to deal in automobiles and supplies. Corporators—Arthur B. Cheney, H. G. Ingalls, O. D. Woodford, of Castleton.

Portland, Me.—Walden W. Shaw Livery

Co., under Maine laws, with \$1,000,000 capital; to manufacture and deal in automobiles, taxicabs, motor cars and vehicles. Corporators—C. E. Eaton, A. F. Jones.

Ticonderoga, N. Y.—Behringer Radiator Works, under New York laws, with \$100,000 capital; to manufacture and sell sectional automobile radiators, etc. Corporators—H. Behringer, C. Lynn, E. Behringer.

Boston, Mass.—F. R. Parker Co., under Massachusetts laws, with \$50,000 capital; to manufacture and deal in automobiles. Corporators—Frank R. Parker, Clarence C. Colby, James A. Murphy, all of Boston, Mass.

Columbus, Ohio—Columbus Auto Sales Co., under Ohio laws, with \$10,000 capital; to sell and rent automobiles and equipment. Corporators—Charles, Frank S. Mary W., Iva E. Cummins, and Virgil L. Fishbaugh.

Chillicothe, Ohio—Scioto Auto Car Co., under Ohio laws, with \$150,000 capital; to manufacture and deal in automobiles, motors and motor vehicles. Corporators—F. C. Arbenz, Richard Enderlin, C. A. Fromm, R. W. Hanley.

Pleasantville, N. J.—Atlantic City Riviera Parkway-Ocean Pier Co., under New Jersey laws; to construct ferries, airships, amusement structures, automobiles, tracks, etc. Corporators—S. J. Clark, R. P. Thompson, G. Shaw.

Philadelphia, Pa.—H. S. Auto Switch Co., under Pennsylvania laws, with \$50,000; to manufacture electric switch for automobile motors under letters patent. Corporators—Charles H. Hutchinson, George A. Schenk, E. L. English.

New York City, N. Y.—Aerial Manufacturing & Supplies Co., under New York laws, with \$50,000 capital; to manufacture aeroplanes, gliders, automobiles, hydroplanes, etc. Corporators—Samuel Shethar, John Loughran, Chas. H. Stoll.

Indianapolis, Ind.—Great American Automobile Co., under Delaware laws, with \$1,500,000 capital; to manufacture automobiles and other motor vehicles. Corporators—Samuel Quinn, Jr., Chas. N. Less, L. H. Van Briggie, all of Indianapolis.

Lockport, N. Y.—Harrison Radiator Co., under New York laws, with \$50,000 capital; to manufacture radiators, automobile machinery and other appliances. Corporators—W. H. Upson, B. V. Covert, O. A. Loosen, H. C. Harrison, all of Lockport.

Hartford, Conn.—Carl H. Page Associates, under Connecticut laws, with \$17,000 capital, of which \$1,400 are paid in; to buy and sell automobiles, and conduct a garage. Corporators—James J. McKenna, Harry Unwin, Joseph W. Ball, all of New York.

**Increases of Capitalization.**

Freeport, Ill.—Stover Engine Co. increases capital from \$125,000 to \$130,000.

Minneapolis, Minn.—Electric Carriage & Battery Co. increases capital to \$100,000.

Connersville, Ind.—Lexington Motor Car Co. increases capital from \$50,000 to \$100,000.

**Changes Among Prominent Tradesmen.**

Changes have been made in the New York representation for Stoddard-Dayton cars, the Dayton Motor Car Co., of Dayton, O., having appointed H. M. Browner as manager of the Metropolitan branch. Richard Newton returns to Newark, N. J., to manage the branch in that city, and E. C. J. McShane, recently manager at Newark, is to be head of the Brooklyn branch, which is to be opened at St. John's place and Bedford avenue. The Courier car, made by a subsidiary of the Dayton Motor Car Co., in the future will be known as the Stoddard "20."

Burton Parker has been appointed advertising manager of the Willys-Overland Co., with headquarters at the Toledo (O.) factory. Parker brings a ripe fund of experience to his new position. He spent nine years in the service of the Hartford Rubber Works Co., four years with the Fisk Rubber Co. and also successively served the Pope Mfg. Co., the Olds Motor Works and the Michelin Tire Co., and latterly was a member of the staff of a well known advertising agency.

H. L. Johnson, the Boston manager for the Premier Motor Mfg. Co., Indianapolis, Ind., has been called to the factory to accept a position of responsibility in the sales department. He leaves Boston on September 15th for a two weeks vacation and will assume his new duties on the first of October.

C. T. Paxton has resumed his former duties as manager of the Buffalo sales department of the E. R. Thomas Motor Co., of that city. He was transferred to Chicago a year ago to open the company's branch in the Windy City.

Bert Collins, superintendent of the Peerless Motor Car Co., of Cleveland, O., has resigned to go with the Lozier Motor Co. He will occupy a similar position in the new Lozier factory in Detroit, Mich.

W. L. O'Neil has been appointed manager of the New York branch of the Stromberg Motor Devices Co., of Chicago, Ill. He will make his headquarters at 1926 Broadway.

William F. Adams has been appointed manager of the Boston branch of the Grout Automobile Co., of Orange, Mass. He will make his new headquarters in the Motor Mart.

F. G. Seitz has been appointed Philadelphia manager of the Olds Motor Works, of Lansing, Mich. Until recently he was assistant sales manager of the company at its home office.

## IN THE RETAIL WORLD.

H. Paulman & Co., Pierce-Arrow agents in St. Paul, Minn., has moved into new quarters at the corner of West Sixth and Exchange streets.

A new garage is in course of construction at the Portstown bridge, Huntingdon, Pa. The management will be in the hands of S. G. Wilson and J. E. Sexton.

The Jones Auto Exchange has moved its new quarters on North Topeka avenue, Wichita, Kan. J. J. Jones is the manager of the concern, which handles Ford cars.

The John Deere Plow Co., of Little Rock, Ark., has been appointed state agent for the Hupmobile. The company's headquarters are at 1120 East Markham street.

Fire destroyed the garage of R. W. Powers in Anawan street, Fall River, Mass. The total damage amounted to only \$3,200, as most of the cars on hand were removed in time.

The Colombia Garage is the style of a new concern which just has engaged in business at 41 Ivy street, Atlanta, Ga. Vincent J. Hurley and Allen W. Renfrew are in control.

C. J. Webster, an Oklahoma City banker, has organized a company to handle the Owen car; Webster's company will have the Owen agency for the entire state of Oklahoma.

The Glunz-Kearns Auto Co., of Ft. Scott, Kan., has sold out its business to J. F. Hendricks, operator of the only taxicab in the town. The agency for Mitchell cars is included in the sale.

Under the style the Wayne Garage Co., a company has been formed to operate at 1129 Wayne avenue, Germantown, Pa. The garage which is in course of construction is 167x69 feet and will cost \$4,500.

Glenn Wicken, owner of a garage at Walden, N. Y., has invaded Bushkill, Pa., and is building there a garage and blacksmith shop. He will sell supplies and accessories in addition to doing repair work.

Abbott Slug, a machinist of South Bethlehem, Pa., is building a garage and machine shop on the north bank of the Lehigh river, near South Main street. The structure will be 60x30 feet, of brick and concrete.

Work has been started on the building of a garage for the Bartlett Garage Co., of Philadelphia, Pa., at the corner of Twenty-first and Market streets. The structure will be four stories high and will cost \$160,000.

Julian Barnes, formerly with the Good-year Tire & Rubber Co., has entered into partnership with his brother, Theodore Barnes, under the style Theo. Barnes & Co., at Washington, D. C. They will handle Pullman cars.

J. G. Edwards, of Hay Creek, Ore., has purchased the property at the southeast

corner of Union avenue and East Burnside street, and will erect a garage thereon. The structure is to be two stories high and to measure 50x100 feet.

Montgomery Baggs and W. B. Cochran, guiding spirits of the Haynes Auto Sales Co., at San Francisco, Cal., have opened new headquarters at the corner of Van Ness avenue and Turk street. Haynes cars will be dealt in exclusively.

Blackburn & Turner is the style of a new firm which has been formed in Ellwood City, Pa. Their garage will be two stories high, of brick and concrete, and will be located on Spring avenue. It will be ready for occupancy about October 1st.

S. Y. Turner and P. M. Sprowls have formed a partnership in Los Angeles, Cal., and will enter the garage business. They are building an up-to-date structure for this purpose on Olive street, which will be 50x155 feet and will cost \$50,000.

Under the style the Jungclas Auto Co., a new firm has entered the garage business and opened headquarters at Reading road and Maple avenue, Cincinnati, O. The building is said to be absolutely fireproof and roomy enough to house 100 cars.

Having obtained a generous slice of Owen territory, F. J. Long, of Atlanta, Ga., has embarked in the business in that city. His territory includes the states of Florida, North Carolina, South Carolina, Mississippi, Tennessee and Alabama.

Reamer & Haines, of 2214 Spring Garden street, Philadelphia, Pa., who hitherto have confined themselves to electrics, have enlarged their sphere and in the future will act as agents for the Petrel gasoline cars. The electric vehicles will be continued.

The old foundry building on Union street, Dundee, N. Y., is to be torn down to make room for an up-to-date garage. E. L. Balley is the owner of the property, which is 63x100 feet and part of the Dundee Electric Light plant, of which Balley is president.

Under the style United Motors Des Moines Co., a branch of the United States Motor Co. has been established in the Iowa city of that name. The establishment included the purchase of the Capital Auto Co., the manager of which will continue as treasurer of the branch.

The Broadway Automobile Exchange, one of the largest dealers in second-hand cars in New York City, soon will move into its new factory and storage rooms at Fifty-eighth street and Eleventh avenue. L. C. Jandorf is president of the concern, which employs 100 men in the reconstruction and repair of used cars.

The Linkroum Automobile Co., formerly distributor of Lozier cars in New Jersey, has been absorbed by the New York branch of the Lozier Motor Co. S. H. Stern, manager of the Linkroum company, continues in the service of the Lozier company, as

sales manager for the territory formerly controlled by the Linkroum concern.

The Henderson Motor Co., southern branch of the Henderson Motor Sales Co., has opened headquarters for the southern territory, embracing Virginia, the Carolinas, Tennessee, Georgia, Alabama and Florida, at 226 Peachtree street, Atlanta, Ga. The company will handle the Cole "30" and Westcott "45-50" cars exclusively.

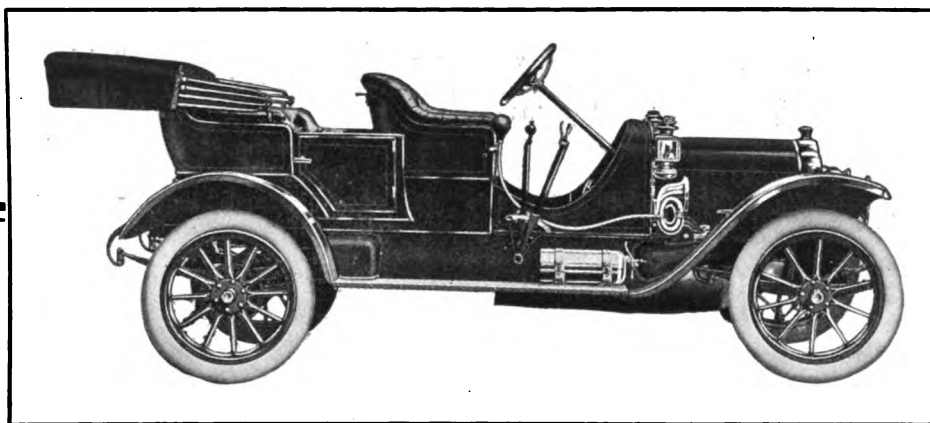
A four-story garage to cost between \$75,000 and \$100,000 is in course of erection at the corner of Twenty-first and Washington streets, Portland, Ore. The property is owned by J. G. Edwards and is 120x130 feet. The building is of reinforced concrete and is said to surpass in equipment any similar building in the West.

William S. Grady, of Lowell, Mass., has taken the agency of Regal cars for Lowell, Lawrence and other towns in that vicinity, and will establish a garage at the corner of Bridge and Paige streets, in the premises formerly occupied by the Lowell Electric Light Corporation. In addition to handling the Regal cars he will carry a full line of accessories and supplies.

F. J. Wallace and F. H. Keller are the active heads of the Washington Auto Co., which just has been formed at Indianapolis, Ind. The concern has opened an immense garage at the corner of Pine and East Washington streets, capable of holding 150 cars. The garage also will be used by the Taxi-Transfer Co., a new company chartered to operate taxicabs in Indianapolis.

## New York Garagemen at Odds Over Rates.

Proposals for concerted action in the raising of garage rates on the part of all garages in the downtown section below 110th street, Manhattan, has caused friction in the ranks of the Garage Owners' Association, of New York City, and has resulted in the resignation of George Edward Shaw, of the Columbus Garage, 102 West 107th street, as president of the association. Shaw declares that he has lost \$30,000 in less than five years as owner of the largest garage in Manhattan, and that he would lose all of his business if he attempted to put in effect the scale of charges that other garage owners propose. Peter H. Hoyt, of Hoyt & De Mallie, succeeds him as president of the association. The downtown garages in the past have been charging from \$15 to \$30 per month for storage, according to the location of the garage and the type of car. The storage rates which are proposed for them after September 1st are as follows: Five passenger touring cars, \$30 per month; seven passenger touring cars, \$35 per month; limousines and all closed cars, \$40. Some of the garages announce their intention of putting this scale into effect, while others will make only slight advances over their present rates.



## The Long-Stroke Engine—An Explanation

**T**HE long stroke engine must economize in the use of gasoline, and we will try to make it plain—very plain—just why. You know whether you prefer to fill a gallon crock or a quart measure (if you had to pay for it). The gallon crock is the large-bore, short-stroke motor—the tall quart measure represents the medium bore, with the long stroke—both must be filled with gasoline in automobile work.

Of course the gallon crock has a greater capacity than the quart measure, but the greater capacity does not produce proportionately greater power. For example, you know that your revolver will not shoot so far nor penetrate so deeply as your rifle, using the same cartridge. In firearms we call it the length of barrel, and explain it by saying, we get the benefit of the whole expansion of the gas. In automobiles it is the same thing, but we call it the length of stroke. In a rifle we get results because there is but one direction for the gas to expand—the length of the barrel—in automobiles, if there is but one direction in which to expand, and that dimension is sufficiently long, we get the full power.

## White Motors Economical

The above tells the whole story of the remarkable performance of White gasoline cars and trucks, from a standpoint both in power and fuel consumption.

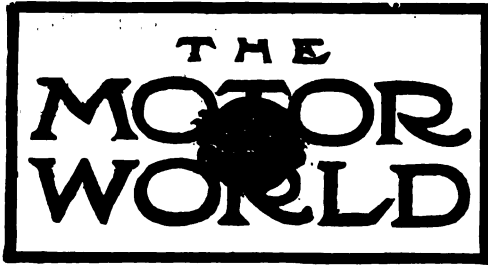
The four cylinders of the White motor are more nearly rifle-barrels than any others, consequently less of the explosive medium is required to produce the high-power rifle results. One other advantage follows: because White motors are not large and unwieldy, White cars are of moderate size and weight, consequently go over the roads more easily and easier upon the tires and other items of maintenance.

Catalogues, testimonials and other  
literature gladly sent upon request.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO



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#### The Necessity for Moderation.

For the successful pursuit of that happiness made possible by the use of motor cars, moderation, as in all things, is necessary. It is easy to abuse or overdo even a good thing, and evidence is not lacking that there are not a few motorists who are inclined that way. They measure their pleasure by miles or minutes or both. "How far" or "How fast" appear to be their guiding principles.

The speed maniac, pure and simple, always has been with us in greater numbers or less, but happily he is either less numerous or less conspicuous at present than once was the case. There remain, however, even now many more motorists who, if they are not of the split-second, slam-bang type, nevertheless incline to take their pleasure swiftly—too swiftly—while there are as many more who, if not so intent on giving answer to the "How fast?" query, are as interested in

discovering how far they can travel between sunrise and sunset.

In too many instances these conditions prevail in respect to family parties avowedly on pleasure bent. In one case which recently came to notice four cars filled with such parties all left the same town one morning and, despite some rough, mountainous going, reached New York, nearly 250 miles distant, the same evening; in another case the family drove from New York to Boston, about the same distance, in one day, the women folk arriving so stiff and travel sore that they were unfit to resume their journey the next morning; in still another instance, the man of the family who steered the car so blistered his hands that they required bandages.

These are not isolated cases. The tours in question all occurred within the course of a few days of each other and knowledge of their results was obtained merely in the course of incidental conversation between mutual acquaintances. They serve to show, however, how such a good thing as the use of the motor car can be abused and suggest strongly the need for preaching and disseminating the doctrine of moderation. In a smoothly running car, miles and minutes slip away so easily that the temptation to over-indulge is not readily resisted. But as is the case with over-indulgence of whatever sort, there is danger of dulling the appetite and causing the pleasurable to become more or less repugnant. Anything that can be done to counteract such tendencies should be done.

It is worth while recalling that it was a somewhat similar abuse of the bicycle—a too prevalent desire to go either too fast or too far—to "ride the thing to death," as it were, that contributed to the fall of that useful and health-promoting vehicle.

#### The Need for Universal Lamp Laws.

Saving a man from himself probably is one of the most thankless and most difficult efforts it is possible to undertake. The average man apparently does not desire to be saved until he is beyond saving or well nigh beyond it, at any rate, particularly if the effort to do so involves expense or inconvenience on his part, however slight.

Nothing better serves to illustrate the point than the disinclination of most owners of horse-drawn vehicles to provide themselves with lamps for night travel and the indifference of the police authorities to the enforcement of laws requiring the use

of such lamps where such laws exist. In many, in fact in most instances, the disinclination of the horsemen finds expression in strenuous opposition to the enactment of legislation of the sort when it is proposed and usually they find vigorous and shouting supporters in the legislative halls. Always they object to the slight cost and slighter inconvenience the use of lamps entails and with the aid of their political friends it is made appear that such enactments primarily are for the benefit of automobilists.

The horsemen and their friends either cannot or will not see that a lighted lamp after nightfall is in the nature of a life preserver for the person using it, it matters not what form of vehicle he may employ. It is just as necessary and serves the same purposes on the highways of the earth as on the highways of the sea, and it is not too much to say that the person who does not display such a guiding signal is guilty of semi-criminal carelessness.

The idea that the driver of one type of vehicle only shall display such lights and that the burden of avoiding accident with an unlighted vehicle of another type shall fall on him is such apparent and rank injustice that it scarcely should require remark. When an automobilist is so unfortunate as to become involved in such an accident a hue and cry usually results, and, regardless of circumstances, the disposition prevails to blame the man in the motor car. As a matter of fact, however, the automobilist who is not more than ordinarily careful when driving at night is the rare exception. Despite too popular belief to the contrary he has every wish and every anxiety to avoid accident, but however careful the unlighted vehicle is a constant menace to his safety and an even greater menace to the safety of those who occupy it, even if they so often refuse to recognize the truth. Even at a slow pace it does not require much force for a collision to result disastrously to the frail buggies which are the worst offenders.

The need for universal lamp laws is real and urgent and nightly becomes more important. Those who oppose their enactment or who fail to enforce them where they have been enacted are the ones who primarily are responsible for practically all accidents that may occur. Such laws, too, should require the lights to be adequate and not mere glimmerings which now so often

are made to serve; and if the lamps designed for use on bicycles and carriages were provided with a rear real lens and not merely a birdseye ruby the safety of night travel would be further increased. Several lamps of the sort have been produced abroad, and American manufacturers also profitably employ such lenses.

If papers and persons and associations interested in the safety of road travel and in saving life and limb paid more heed to such matters and would assist in inducing horsemen to appreciate that a lamp at night is not short of a life preserver, they would better attain the ends which they seek to serve.

The new identification card system for motorists which was put in force by the police of Greater New York on Thursday last will doubtless subserve many minor purposes never thought of by the originators. For instance, the cards probably will be accepted as vouchers by banks for the cashing of small checks. Furthermore, they will do away with the need of identification tags, long appended to key rings and suspender buckles. Such cards, with photographs have been required by many railroads on mileage books and passes until a comparatively recent date. Since motorists seem prone to accidents, the new cards ought to prove especially handy in that respect. Dyed-in-the-wool joy riders, however, will not like the scheme which makes their identity an open book, but their neglect in not having provided themselves with such pasteboards soon may be considered presumptive evidence of a disposition to exceed legal speeds.

One of the most progressive of automobile manufacturing concerns announces that hereafter, as an accommodation to aviators, the tops of all the trucks it turns out will be lettered as regularly as the sides. The idea is not strictly new, having been adopted by many merchants with the growth of skyscraping flat and office buildings in the larger cities, before the realm of Dobbin was invaded. The man who is enough up to date in his business to use motor trucks usually reaches ahead for other things. An instance in point is shown by an Italian vegetable peddler in Brooklyn, who has painted on the top of his cover: "Oh, ma; here comes Mike!" First the novelty of his equipage

## COMING EVENTS

September 7-10, Buffalo, N. Y.—Automobile Club of Buffalo's touring reliability contest; 800 miles.

September 9-10, Providence, R. I.—Rhode Island Automobile Club's annual meet at Narragansett Park.

September 10, Minneapolis, Minn.—Automobile races at state fair grounds.

September 10, San Francisco, Cal.—Automobile Club of California's Portola road race in Golden Gate Park.

September 10-12, Seattle, Wash.—Seattle Motor Club's race meet.

September 14, Kalamazoo, Mich.—Automobile races.

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 16, Algonquin, Ill.—Chicago Motor Club's fifth annual hill climb.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 17, Newark, N. J.—New Jersey Automobile and Motor Club's sociability run.

September 17, Toledo, O.—Toledo Fair Grounds Association's race meet.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18-20, Elmira, N. Y.—Automobile races at Tompkins county fair.

September 20, Omaha, Neb.—Inaugural meet on Omaha Motor Speedway.

September 20-22, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 21, Atlanta, Ga.—Atlanta Automobile Association meet on speedway.

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 26-29, St. Louis, Mo.—Third annual national good roads convention.

September 30-October 4, Minneapolis, Minn.—Minneapolis "Tribune" reliability run to Aberdeen, S. D., and return.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor

Parkway, under the auspices of the Motor Cups Holding Co.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 14-15, Boston, Mass.—Boston "American" commercial vehicle contest.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

gives him distinction. Then people reflect that as his gasoline outfit brings the garden-sass to their doors quicker, it must usually be fresher. The lettering on the top attracts the attention of persons who are getting up in the world to the cover,

and without realizing it customers begin to discriminate between the dealer who has a cover to protect his wares and the huckster who exposes his merchandise to the dust and rain of suburban and city roads.



**DOES MILE IN 49 4-5 AT BRIGHTON**

**Oldfield Makes Good but Other Events Lag  
—Too Few Contestants—Robertson  
Wins Two One-Hour Races.**

One-sided competition—George Robertson won nearly everything—and two or three discordant notes in the keyboard at the motoring carnival, Labor day, held on the Brighton Beach (N. Y.) track, took off

his own new record and did 49 $\frac{4}{5}$ —a new low notch by three-fifths of a second.

It was really worth while to see "Me and My Car" occupy the center of the stage and both sides at the same time. Unfortunately the new marks stand no chance of being accepted by the American Automobile Association, because they were not automatically and electrically timed.

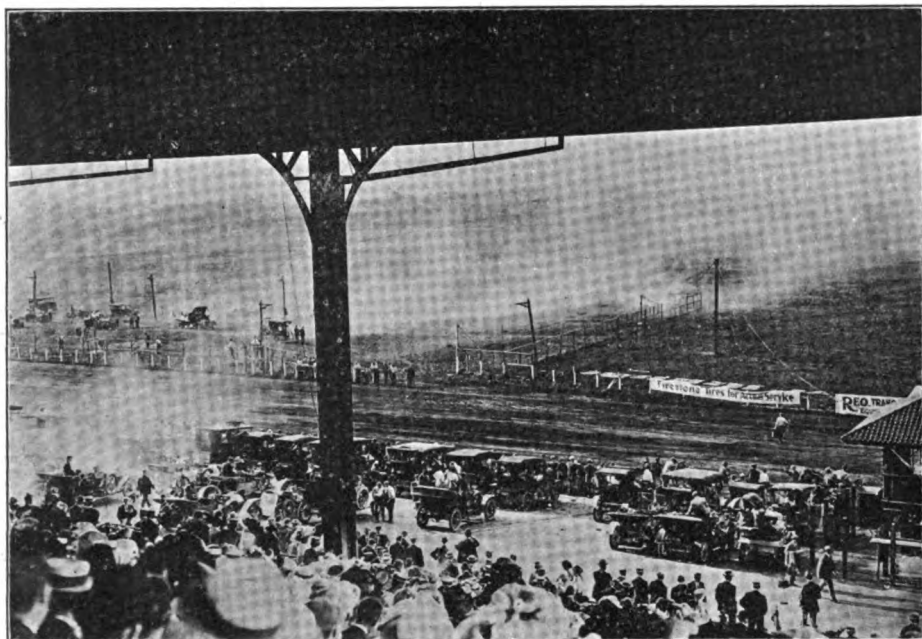
With the capital condition of the track and the fine weather, the crowd was spoiling to have goose pimples raised by a go

to fulfill one or two out of several billion promises, but he broke one of the valves on his Knox at the end of 38 miles. The crowd then called on the luminary who declares that he is not a "ham an' driver," not being attracted by anything short of \$1,000, to shift to one of his other cars, but outside of his Benz he had only his palace abode on rails, lettered as if it contained an equine paradox.

Robertson, Kerscher and the others participated in the first two mile trials, but disturbed no marks. Robertson captured most of the competitive honors, taking the two one-hour races and the two ten-mile contests, one of which proved a walk-over. In the first hour event Robertson, after having tire trouble, overtook Beardsley in the forty-second mile, the latter being forced to leave the track. Robertson then held the lead to the finish, covering 55 $\frac{7}{8}$  miles in an hour, finishing five laps ahead of Kerscher.

In the second one-hour contest, Oldfield did not start. Robertson had lapped the field in the fifteenth mile. Along with Howard, Kerscher and Ormsby he had trouble that forced all into the paddock, but his lead was never seriously threatened. He finished seven miles ahead of his nearest competitor. The remaining events were devoid of interest because of unequal matching. The summaries:

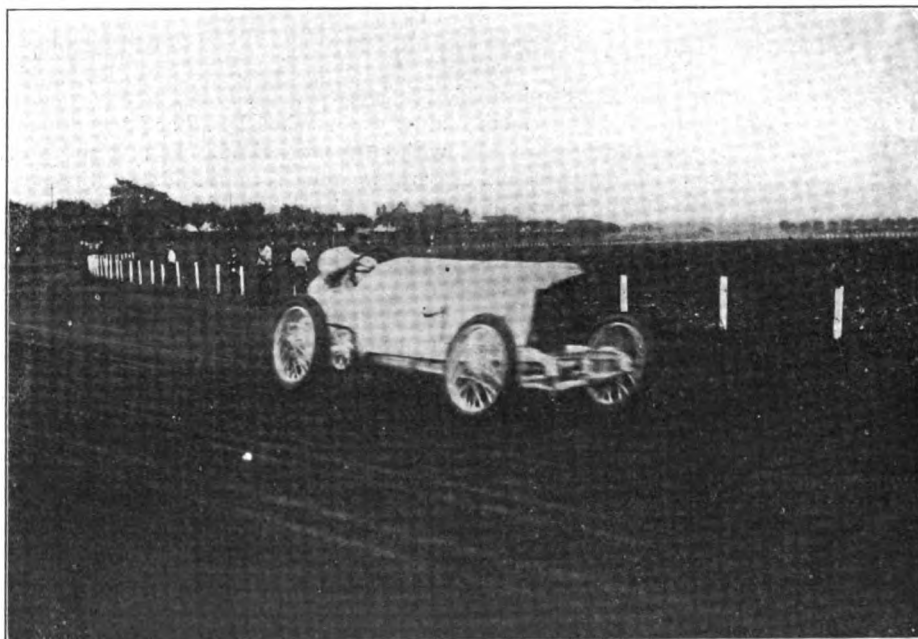
One mile record trials against Brighton Beach track mark of 52 $\frac{3}{4}$  seconds—Barney Oldfield, 200 horsepower Benz, 50 $\frac{3}{4}$  seconds; Ben Kerscher, 100 horsepower Dar-



GENERAL VIEW FROM REAR SEAT IN GRANDSTAND

some of the edge of the public's enjoyment. Barney Oldfield provided the appetizer by three times assaulting Father Time and twice leaving marks on that generally abused veteran with the grass cutter, but of what use was the sauce without much of a repast to dash it over?

The affair, ostensibly promoted by Dan-yell J. Smith, which is the long for Dan, appears to have been more of a pecuniary than an artistic success, although a conservative estimator put the number of spectators at not more than 9,000. Apparently half the spectators had never seen such a racemeet, and regarded the "double bill" put over from Saturday, when it rained, much as they would a two-headed heifer at an old-time dime museum. They swarmed over the track, as it was too "gol durned hot" for the police to lift their eyebrows. A lot of men and boys got in free by arranging a blow-out in the fence beyond the backstretch, but the puncture was finally plugged. Oldfield in his white enameled, freshly manicured Blitzen Benz, made three trials against the world's record of 50 $\frac{4}{5}$  seconds and the Brighton Beach mark of 52 $\frac{3}{4}$ . Both were replaced by 50 $\frac{3}{4}$ . On his second trial Oldfield did 50 $\frac{4}{5}$ , equaling the old mark. Finally to pacify patrons Oldfield had a mile go alone against



IMPRESSION OF OLDFIELD GOING "ALL OUT"

between Oldfield and Robertson, following the fine gabble concocted by the advance agent. It did look for a while after the first of the two one-hour events had started, that Oldfield might have a chance

racq, 53 $\frac{3}{4}$  seconds; George Robertson, 90 horsepower Simplex, 53 $\frac{3}{4}$  seconds; Ray Howard, Isotta, 1 minute; O. F. Rost, Black Crow, 1:15 $\frac{3}{4}$ .

One hour race, 600 cubic inches dis-

placement or less—Won by George Robertson, 50 horsepower Simplex, 55 $\frac{1}{2}$  miles; second, Kerscher, 60 horsepower Fiat, 51 miles; third, Howard, Isotta, 48 miles; fourth, Ralph Beardsley, 50 horsepower Simplex, 44 miles; fifth, O. F. Rost, Black Crow, 44 miles.

Ten miles, 300 cubic inches displacement or less—Won by E. H. Sherwood, Mercer; second, M. P. Batts, S. P. O. Time, 10.46 $\frac{1}{2}$ .

Ten miles, 600 cubic inches displacement or less—Won by George Robertson, 50 horsepower Simplex; second, Kerscher, Fiat, time, 10.12 $\frac{1}{2}$ .

One mile trials against Brighton Beach track record of 52 $\frac{3}{4}$  seconds—Oldfield, Benz, 50 $\frac{1}{4}$  seconds and 49 $\frac{1}{4}$  seconds; Robertson, Simplex, 52 $\frac{1}{4}$ ; Kerscher, Darracq, 52 $\frac{1}{4}$ ; Ray Howard, Isotta, 59 $\frac{3}{4}$ .

## MILLER WINS FREE-FOR-ALL AT YORK

But there Was Glory Enough for Four Others in Other Events—Earl Goes Through the Fence.

Five thousand people who attended the York (Pa.) Automobile Association's race meet at the county fair grounds on Monday, 5th inst., witnessed some exciting brushes, despite the fact that the drivers all were local men. The card consisted of five numbers, the top liner being a five miles free-for-all, which was won by Archie Miller, Chalmers, in 7:20. Miller was kept hustling all the way by Richley, Buick, kept moving all the way by Richley, Buick,

Won by A. Geesey, Maxwell; second, Charles Snyder, Brush. Time, 9:20.

### Catskill Affair is "Off" "For Keeps."

Catskill mountain hotel keepers will no doubt shed bitter tears over the announcement by the Motor Contest Association that he has indefinitely postponed the proposed reliability run and hill climb to the haunts of Rip Van Winkle, which was scheduled to start Saturday, 10th inst., and last three days. Lack of entries was the cause of the abandonment. The contest was postponed once before for the same reason.

### Horses the Attraction at Hawthorne.

Although automobiles were scheduled to race at the Hawthorne track, Chicago, on



CARS THAT WERE TAXED \$5 FOR PARKING SPACE



THE "FAVORED FEW" WERE NUMEROUS IN THE CLUBHOUSE

Ten miles, 600 cubic inches displacement or less—Walkover for Robertson, Simplex. Time, 10.08 $\frac{1}{2}$ .

Five miles, 300 cubic inches displacement or less—Won by M. P. Batts, S. P. O.; second, Juhasz, S. P. O. Time, 5.16 $\frac{1}{2}$ .

One hour race, 600 cubic inches displacement or less—Won by Robertson, 50 horsepower Simplex, 55 miles; second, Leonard Ormsby, 50 horsepower Allen-Kingston, 48 miles; third, E. H. Howard, Isotta, 29 miles.

### Buffaloans Out for the Enos Trophy.

Competing for the Laurens Enos trophy, 15 cars started from Buffalo, N. Y., on Wednesday, 7th inst., in the Automobile Club of Buffalo's 800 miles reliability contest, which will extend over a period of four days. The Bison City will be the starting and finishing points of each day's run, which will be through different territory, and will average about 200 miles per day. The daily runs are as follows: First day, Rochester and return; second day, Salamanca and return; third day, Geneseo and return; fourth day, Hornell and return. Prizes also will be given to class winners.

keep in front. H. Miller was second. The meet was marked by an accident which was without serious result. In a 10 miles event, Earl, in the Thomas, lost a tire on the thirteenth lap and went through the fence. He escaped with slight bruises. Richley also fared well, capturing the \$1,000-\$1,500 class after a warm tussle with Archie Miller, who defeated him in the free-for-all. In addition he was placed twice. The summary:

Five miles free-for-all—Won by Archie Miller, Chalmers; second, H. Miller, Crawford; third, J. W. Richley, Buick. Time, 7:20.

Ten miles, cars costing \$1,000-\$1,500—Won by J. W. Richley, Buick; second, Archie Miller, Chalmers; third, John Burghard, Crawford. Time, 14:27.

One and one-half miles novelty—Won by Roy O'Connor, Pullman; second, Archie Miller, Brush; third, J. P. Oden, Thomas. Time, 4:47.

Ten miles, cars costing \$700-\$1,000—Won by Charles Lambright, Buick; second, J. W. Richley, Buick; third, Walter Grove, Hupmobile. Time, 15:24.

Five miles, cars costing \$650 and under—

Labor Day, at the Chicago Business Agents Association sports carnival, the crowd of 35,000 people became so wrapped up in the horse events that the motor races were called off. As the proposed meet had not been sanctioned, the entries were confined to local drivers and but few at that. The track was very muddy.

### No Speed Carnival for Lowell.

What is probably the final chapter in the automobile racing history of Lowell, Mass., was written last week when President J. O. Heinze of the Lowell Automobile Club announced definitely that the proposed races scheduled for the 17th inst. were off for this year. With the national stock car races practically awarded to Elgin for 1911 it is probable that Lowell's star in the racing firmament has set forever.

### London's Big Fleet of Motor Busses.

No less than 1,078 motor omnibuses are running in London at the present time, as shown by last month's license figures. Of these, 558 are chain driven, 448 have the so-called "pinion and rack" drive, while but 72 are equipped with live rear axles.

**ELGIN RACERS AT INDIANAPOLIS**

**Participate in Speedway Meet—Aitken Resumes Racing with a Victory—Wilcox Proves a Surprise.**

Those Indianapolis who missed the Elgin road carnival saw a very good pocket edition of the western classic in the third and final Grand Circuit meeting on the Indianapolis (Ind.) Motor Speedway on Saturday and Monday, 3d and 5th inst. respectively. Eleven of the Elgin speed merchants and some novices who proved genuine surprises made the windup of the season on the Hoosier oval a memorable one and furnished some of the most exciting speed duels ever witnessed on that track. There were no records broken and no accidents to thrill the large crowds who were present, but as compensation there were speed battles sufficiently close and hair-raising to satisfy the most ardent fan.

Driving one of the hardest and most consistent races of his career, John Aitken, the National star, who relinquished the wheel with the death of his mate, Kincaid, last July, signalized his return to the racing arena by winning the stellar event of the meet, the 200 miles free-for-all on Monday. He completed the double century in 2:47:54, after being subjected to a long and fierce grilling by Harroun, Dawson and other veterans who gradually wore themselves out in their strenuous efforts to win. Livingston added another flower to his Elgin bouquet and also to the National record by running a close second to Aitken, while Barndollar, in a McFarlan, who faced the starter for the first time, took third. Aitken in addition to capturing the \$1,000 first prize also bagged \$300 of Bosch magneto money through having one of those instruments on his car.

One of the greatest surprises of the meet was the performance of Howard Wilcox, who in his maiden appearance in a National captured the coveted Remy Grand Trophy and Brassard in a brilliant exhibition of driving against a field of top notchers. By this victory the National company will hold the \$2,500 trophy until the meeting next spring, while Wilcox will receive \$50 per week as pocket money until the Brassard next is raced for. A National again was runner-up, Charlie Merz being at the wheel; Jap Clemens in a Speedwell was third.

Aitken was not the only one to receive cash in four figures, for Eddie Hearne and the Benz along with several others chased a winged bag containing \$1,000 for 100 miles on Saturday, and, proving fleetier than the others, the Chicago combination collected the money. Hearne drove steadily and consistently but at that he had no

walkover, and was kept on the jump all the way. Most of Hearne's worries were caused by Harry Knight, a raw novice in a Westcott, who had never before driven on anything but a half mile dirt track. Although Knight's car was only 50 horsepower against Hearne's 120, the former made the wise ones rub their eyes by his whirlwind work. He hammered away fiercely and persistently from flag to flag, and came within four minutes of carrying away the big plum. As it was he made a non-stop run and beat out Livingston, National, and Harroun, Marmon.

Ralph DePalma and the big 200 horsepower Fiat, the most powerful car at the meet, came in for considerable attention, but did nothing much in the way of starting work. DePalma took one shot at the track mile record of 0:35.68 with the big flier, but was unable to do better than 38.64. In fact with a "90" he did nearly as well, 40.21. His only victory of the meet was scored in a 10 miles free-for-all on Monday, when driving the 200 Fiat he trimmed Hearne in the 120 Benz.

In the distribution of the stock chassis and special events, honors were parceled out quite evenly. Hearne captured the 10 miles for the Speedway silver helmet and a 50 miles free-for-all. Aitken and Harroun each took two of the stock chassis, and Wilcox managed to chalk down another victory. Scoring a veritable clean sweep in their respective fields, Michelin tires and Bosch magnetos had a close numerical fight for honors, the former winning by a tire width. Michelin were the footwear on 16 of the 19 winners, including the 100 miles Remy Trophy and the 200 miles free-for-all, while Bosch instruments did the sparking on 15 winners.

**First Day—Saturday, 3d.**

Lured by the fair weather a large crowd was on hand and streams of people still were pouring into the grounds when the first race, five miles for cars under 160 cubic inches, was called. There were only three starters, the trio of red, white and blue Herreshoffs which always come out for this class and invariably capture it. They put a pretty race, Emmons beating out Smith handily.

Although there was a high premium offered for shaving even fractional seconds off the mile record, DePalma was unable to cash in. The Warner electrical apparatus caught the big 200 Fiat in 38.64. A second attempt with a 90 Fiat netted 40.21, leaving the record safe.

Eleven cars toed the tape for the 100 miles free-for-all, and the personnel gave promise of plenty of ginger which later was uncorked. Hearne in the Benz immediately took the lead, which action caused the knowing ones to exchange significant looks. Aitken and Livingston, the National pair, tacked on and Dawson in the

Marmon was at their heels. The others were strung out behind. A fast pace was set from the start, and the "deaths" soon commenced. In the third lap Aitken's carburettor went on strike and he retired. Harroun, who was pounding along at his usual lightning gait, pulled up at the pits in the eighth round, and with Dawson already there the Marmon hopes fell lower. Hearne still was leading the procession, and staving off the attacks of the others. Livingston stopped for tires in the fourteenth lap, leaving young Knight in the Staver as the most persistent and dangerous of Hearne's rivals.

When Livingston returned he resumed his old place at second and Knight was in third position. The hot pace set by Hearne was killing off most of the stragglers and at 50 miles, the half way station, he had lapped the field. Incidentally Knight had displaced Livingston at second, only to lose it in the next lap. At 67 miles Harroun, who had steadily been crawling up, moved into second place with Knight and Livingston close behind. In the 67th mile Hearne made his first stop for oil, and at the same time Knight moved back to second place. This order remained unchanged to the finish, Livingston beating out Harroun for third, despite the fact that he ran the last three laps slowly on account of a bad tire. Hearne's time was 1:19:58.09.

In the line-up no one looked for anything sensational from Wilcox (National) in the 100 miles for the Remy Trophy. However, he scored a ten strike by making a non-stop run, completing the century in 1:23:03. Merz in another National was second, and Clemens (Speedwell) third. Dawson in the Marmon, who looked good in the early stages, was eliminated at 67 miles with engine trouble. While he lasted he gave the leaders no peace of mind. In the five miles stock chassis classes, first money was taken by Harroun, Aitken, Edmunds in the Cole, and Wilcox. The summary:

Five miles, stock chassis 160 cubic inches and under—Won by Emmons, Herreshoff; second, Smith, Herreshoff; third, McCormick, Herreshoff. Time, 6:40.04.

Five miles, stock chassis, 161-230 cubic inches—Won by Edmunds, Cole; second, Greiner, Staver-Chicago; third, Endicott, Cole. Time, 5:55.

Five miles, stock chassis 231-300 cubic inches—Won by Harroun, Marmon; second, Gelnaw, Falcar; third, Pearce, Falcar. Time, 4:35.06.

Five miles, stock chassis 301-450 cubic inches—Won by Aitken, National; second, Dawson, Marmon; third, Greiner, National. Time, 4:05.

Five miles, stock chassis 451-600 cubic inches—Won by Wilcox, National; second, Merz, National; third, Basle, Matheson. Time, 4:06.07.

One hundred miles, Remy Grand Bras-

sard and Trophy Cup, cars not exceeding 450 cubic inches—Won by Wilcox, National; second, Merz, National; third, Clemens, Speedwell; fourth, Ireland, Midland. Time, 1:23.03.

Five miles handicap, free-for-all—Won by Edmunds, Cole; second, Basle, Matheson; third, Clemens, McFarlan; fourth, Knight, Westcott. Time, 3:37.05.

One hundred miles, free-for-all—Won by Hearne, Benz; second, Knight, Westcott; third, Livingston, National; fourth, Harroun, Marmon. Time, 1:19:58.01.

Ten miles, free-for-all, Speedway Helmet—Won by Hearne, Benz; second, Livingston, National; third, DePalma, Fiat; fourth, Aitken, National. Time, 7:03.21.

Mile time trials against track record by DePalma, 200 Fiat—First trial, 0:38.64. Second trial, 0:40.21. Record, 0:35.68.

#### Second Day's Racing.

One of the advantages of a brick surface was brought out by a heavy downpour of rain on Monday noon. Although the track was drenched by the storm, it rapidly shed the moisture, and in half an hour after the rain was over the first race was called. The sun broke through the clouds at intervals, and over 18,000 persons who took a chance on seeing some good races were well rewarded. DePalma and Hearne came together in the 10 miles free-for-all, and their big cars so far outclassed the others that the latter never had a look-in. They were lost at the start, but Hearne and DePalma put up an exciting battle, hanging close together until the last lap, when Hearne unwound fast in an effort to jump DePalma, but the latter had the answer waiting and crossed the tape a few yards ahead. Harroun, Marmon, took third money.

The red letter number of the day was the 200 miles free-for-all, with \$1,000 for the winner. Twelve competitors started and immediately a bitter struggle commenced. In fact, the result was indicated in the first lap, but none had sufficient foresight to know it. Aitken and Livingston in Nationals were leading the field, with Dawson, Marmon, and Clemens, Speedwell, next in order. No changes among this quartet occurred until the tenth mile, when Clemens and Dawson swapped places. Clemens continued his climb, taking second in the 11th mile, and Ray Harroun was at his heels, having come up strong. He continued his onward march so determinedly that Clemens, and then Aitken, soon succumbed, and in the 20th mile Harroun was leading. Things happened swiftly in the front division for a while and there was a constant seesaw of positions. After being pushed off the top rung a few times Harroun finally got a firm grip on the front berth and cut out a dizzy pace that kept the others exceedingly busy trying to hang on. This mad

whirl kept up until after the 70th mile, when Harroun lapped Livingston and Aitken moved up to second.

Another era of kaleidoscopic shifts came soon when Harroun pulled up for the first time with bad tires and Aitken set the pace. And such a clip as he tore off! So fast did he gain on the others that he had lapped all but Harroun at 90 miles, the latter having made a quick change and got back into the fray, where he hung tenaciously to the flying Aitken. At 100 miles, the half-way mark, all twelve cars were still running, but the crowd saw only Aitken and Harroun, who were having a terrific battle. They were closely matched and were putting up one of the grandest fights ever seen on the track. Gradually they pulled away from the others, who were unable to hang on and soon were lapped, not once, but several times. Like a dog in pursuit of a cat, Harroun kept at Aitken's heels, spurring him on, but not quite able to catch him. At 150 miles they still were pounding out the same heart-breaking pace which had killed off three of the others—Basle, Matheson; Ireland, Midland, and Gelnaw, Falcar. Livingston, although several miles behind, had a good grip on third and Dawson, in the other Marmon, was teasing him.

About this time another vial of thrills was uncorked. Livingston stopped for tires and Dawson closed the gap immediately. Then Harroun unwound a sensational spurt that carried him past Aitken and the crowd jumped to its feet yelling madly. Aitken soon responded with another spurt that put him back in the lead, and the crowd went wild. Repulsed, Harroun came back slowly and crept up inch by inch, and in a few laps again was in front. Fate then frowned on the Marmon team and Dawson lost a tire, which cost him his place. The crowd soon got back to the two leaders, who now were running abreast, and seesawing in the lead.

It was nearing the finish and promised to be one of a rare sort when misfortune appeared in life size and dealt the cards again, and gave Harroun a bad hand. Under the terrific strain a universal coupling broke and the Marmon "died" instantly on the backstretch and Aitken's dangerous foe was removed. From then on Aitken had an easy time, for although the others were still kicking in lively fashion they were not near enough to be dangerous and he slid home a winner and a well deserved one. His time for the double century was 2:47.54, an average of over 71 miles an hour. Livingston had held onto second place after Harroun went out, and Barndollar, with a McFarlan, another dark horse, romped home third.

Some exciting brushes occurred in the five miles events for stock cars. Emmons, Herreshoff, Frayer, Firestone, Aitken, National, Harroun, Marmon, and Wilcox, Na-

tional, were collectors of first money. The summary:

Five miles, stock chassis 160 cubic inches and under—Won by Emmons, Herreshoff; second, McCormick, Herreshoff; third, Smith, Herreshoff. Time,

Ten miles, free-for-all—Won by DePalma, Fiat; second, Hearne, Benz; third Harroun, Marmon; fourth, Livingston, National. Time, 6:48.04.

Five miles, stock chassis 161-230 cubic inches—Won by Frayer, Firestone-Columbus; second, Endicott, Cole; third, Greiner, Staver-Chicago. Time, 4:47.08.

Five miles, stock chassis 231-300 cubic inches—Won by Harroun, Marmon; second, Pearce, Falcar; third, Barndollar, McFarlan. Time, 4:38.02.

Five miles, stock chassis 301-450 cubic inches—Won by Aitken, National; second, Dawson, Marmon; third, Greiner, National. Time, 4:10.02.

Fifty miles, free-for-all—Won by Hearne, Benz; second, Harroun, Marmon; third, Livingston, National. Time, 38:02.08.

Five miles, stock chassis 451-600 cubic inches—Won by Wilcox, National; second, Basle, Matheson; third, Merz, National. Time, 4:09.09.

Five miles handicap, free-for-all—Won by Barndollar, McFarlan; second, Frayer, Firestone-Columbus; third, Clemens, McFarlan; fourth, Hughes, Parry; fifth, Edmunds, Cole. Time, 5:08.03.

Two hundred miles, free-for-all, cars not exceeding 600 cubic inches—Won by Aitken, National; second, Livingston, National; third, Barndollar, McFarlan. Time, 2:47.54.

#### Atlanta Puts Up Big Cash Prizes.

In an endeavor to regain for the Atlanta (Ga.) Speedway the prestige and prominence which it once held as one of the foremost motordromes in the country, the Atlanta Automobile Association has arranged an extensive card for the fall meet on November 3d-5th, when it is hoped to draw the star drivers to the southern course and boost its standing in the record table. There are twenty races carded for the three days, consisting chiefly of stock chassis classes with topline numbers for each day. The latter consist of the 100 miles Coca Cola Trophy race, with \$500 in gold, the 200 miles City of Atlanta Trophy race, which will net the winner \$1,000 in gold, and the 250 miles Atlanta Speedway Grand Prize, worth \$3,000 in gold to the winner. In the first two races the trophies must be won three times consecutively to become the permanent property of the winner, while the latter race is purely a cash event. The first two are holdovers from last year, while the Grand Prize is a new creation. The total cash prize value is \$11,000. Three amateur events also are carded with medals for the winners.



**MEXICO NOT A TOURING GROUND**

**Pilot of the Flanders "Under Three Flags"  
Car Tells Why—Small Prospects for  
Good Highways.**

That the present generation of motorists will never enjoy the opportunity of touring the republic of Mexico under favorable road conditions is the opinion of William J. Lane, who has returned from

for the first 600 miles a mountain desert. Water is so infrequently met with as to limit the population very radically. Often houses were 30 miles apart, even along the line of the National railroad. Mountains were always in sight and caused long detours. In general the road, in the form of a burro trail, followed the valleys between the mountains. The surface was usually gravel and excellent natural highways would have been in evidence undoubtedly but for the fall floods which annually make

an extent that the travel often had to be abandoned and camp made on the bank of a stream, the delay being in operation until morning, when the water would usually have fallen to such an extent as to permit fording. To build a road through such country would require the construction of so many masonry bridges as to fairly swamp any nation in debt, Lane says.

Another obstacle is the lack of appreciation of good highways on the part of the Mexican peasantry. Accustomed for



WHAT PASSES AS A "FAIRLY GOOD" ROAD



GIANT CACTI OF WHICH MILES EXIST

Mexico City to resume his regular work in the sales department of the E-M-F Co., after piloting the Flanders "20" "Under Three Flags" car from Quebec to the conclusion of the trip.

Mexico, Lane believes, is forced to combat such unusual difficulties in the way of climate and soil that it is doubtful if there

of each valley a watercourse which, in two rainy days, often scours from the surface of the land every vestige of a highway, seaming it with arroyos. The only feasible system of road-making would be, in Lane's opinion, construction of highways along the mountain ridges, and this would be accompanied with tremendous expense.

generations to the exclusive use of the pack animal for transportation purposes, the Mexican considers any road where the hardy burro can pick his way, as good enough. Stretches were often encountered where a good road might have been maintained but for the disregard of the possibilities by the inhabitants. Their indiffer-



ROUGH GOING THAT TRIES MEN'S SOULS



TEARING DOWN A FENCE TO MAKE PROGRESS

is ever a road system there worth the name. Lack of binding vegetation, prolonged drought and torrential rains combine with the unusually rough nature of the topography to make road building virtually impossible, so far as lasting effects are concerned.

The "Under Three Flags" car entered Mexico at Laredo and found the country

The whole northern half of the route, broadly speaking, was crossed during its dry season. South of San Louis Potosi, however, the rainy season was encountered. Here was given an excellent demonstration of the difficulties attendant on the time of year when the country is drenched daily by a heavy fall of rain. During the afternoon the rains would fill the creeks to such

ence was chiefly noted in the nonchalant manner in which they dig up a highway to provide for the needs of an irrigation ditch. These ditches radiate from tanks, built on the lowest spots of the valleys. In rainy seasons these tanks are filled and often carry a supply sufficient to last a herd of cattle through the dry season.

No attempt is made to bridge the ditches.



In the wet season they are practically fatal to anything but the most heroic efforts, while in the dry season their perpendicular banks almost always require liberal use of a pick and shovel before progress is possible with a motor car.

Progressive residents of Mexico, of course, lament the conditions which prevent them from using their motor cars outside the limits of the various cities. American Minister Wilson, in an interesting conversation with the crew of the "Under Three Flags" car assured them that he was doing all in his power to secure the construction of one model highway between Mexico City and the American border. In all probability the Eagle Pass route would prove most feasible for such an undertaking. But the prospects for such a road are at the best very remote.

#### Regal Plugger as a Good Roads Apostle.

The Regal "Plugger" which last year made the round trip across the continent and after being used as a demonstrating car in Detroit for several months was driven to New York and then piloted on an adventurous swing around a circle that reached to Oklahoma, is to perform another swing of the sort, this time in the south-east. It will be styled the "All Southern Tour" and under the auspices of H. W. Anderson and A. L. Riggs, who constitute the Southern Regal Auto Co. of Atlanta, Ga., the travelworn but hardy old car will leave Norfolk, Va., and trace a zigzagging line of 5,000 miles through Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Tennessee, Mississippi, Arkansas and Louisiana back to Norfolk; the routes traversed subsequently will be issued in book form. The south is agog with good roads sentiment, and it is designed that the Plugger shall travel as a good roads apostle and further the sentiment as much as possible. Messrs. Anderson and Riggs already have enlisted the support of a number of newspapers along the line which have promised to assist in making the "apostle's" journey a conspicuous one.

#### Turns a Quick Deal by Automobile.

Good stories, both true and fictitious, now and then are told of the automobile in its capacity as rapid carrier, but one of the neatest is told of P. T. Powers, president of the Eastern Baseball League, who is an enthusiastic motorist. Mr. Powers recently saw a real estate advertisement in a New York newspaper of a piece of land for sale out in New Jersey. He immediately called for his car and was soon headed for the place. Inside of an hour he had bought the land, and before doing so had sold the crop of rye on it to the former owner of the land, and was back in New York inside of three hours. In speaking of the matter

Mr. Powers said to a friend: "If I had to do that by the usual means of travel it would have been a day's work."

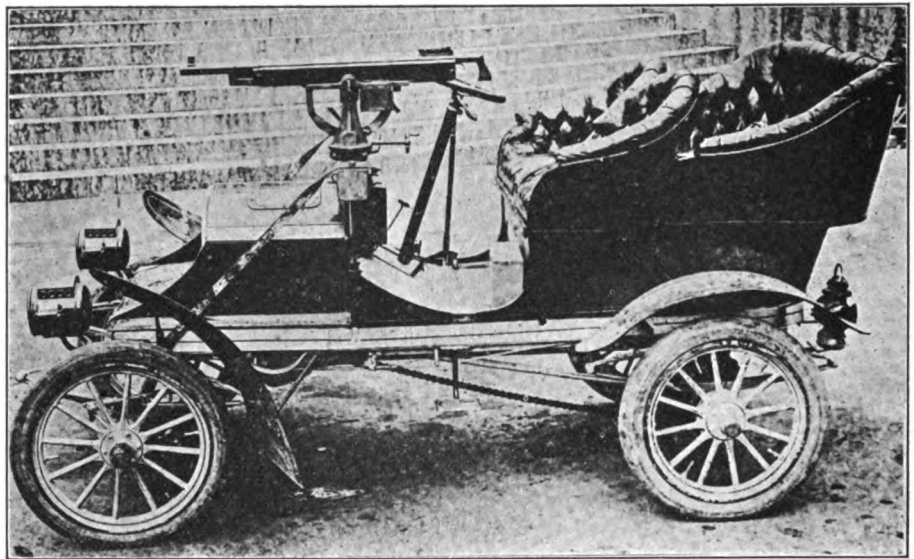
#### Automobile Artillery Put to Practical Use.

For the first time, so far as is known, automobile artillery has been engaged in actual service, the prolonged street car strike at Columbus, Ohio, affording the opportunity. The artillery consists of a Colt rapid fire gun mounted on a Franklin runabout and manned by members of Battery C, Ohio National Guard. It is stationed at the grounds of the state capitol, and during the strike it has been making from five to fifteen trips a day, answering riot calls and doing service at the car barns at the extreme ends of the city. The gun which

be surprised at anything that the ubiquitous motor car is asked to do. The London weekly, "The People," for instance, just has installed a forty horsepower moving picture "show," which travels all over the country giving patriotically-flavored exhibitions by the kinematograph. The whole outfit is carried on an automobile, a large white sheet is stretched at the proper distance from the automobile, and the exhibition is conducted free of charge in every village and hamlet of the British Isles.

#### "Head Chauffeurs" Become Exclusive.

The craving for distinction, the desire to lift one's self at least a notch above the common herd is evidenced by the forma-



"PEACEMAKER" IN USE IN STREET CAR STRIKE

is mounted, as shown in the accompanying illustration, can be turned through a complete circle, and its appearance several times has served to quiet what promised to be serious outbreaks.

#### Use Motor Vans for Frozen Meat.

While the refrigerator car on rails has been used to advantage by the big railroads and meat packers, automobile refrigerators are still a novelty in this country. In Argentina, however, "frozen meat vans," as they are called, are an important factor in the South American meat export trade. The vans, gasoline-driven, are a part of the equipment of the Argentine Frozen Meat Co.'s La Negra works, and are used to transport meat from the refrigerators to the ship's side. They are insulated with compressed cork, insuring the meat reaching the ship at practically the same temperature as when leaving the refrigerator, the speed of the machines also recommending them for the service.

#### Moving Pictures from a Motor Car.

New uses for the automobile are discovered almost daily, and one need hardly

tion in London of a "Head Chauffeurs' Club," which has been launched with a rush. The title seems to indicate that the organization is intended only for the aristocracy of the fraternity—those who have charge of several cars, with a staff of helpers under their orders. A search of the constitution, however fails to disclose any such requirement. The name is a misnomer, but because of it the club has started off with uncommon impetus as to membership.

#### Demand Knowledge of London Streets.

Complaint is being made that the Scotland Yard authorities are making the topographical part of the examination through which would-be taxicab drivers must pass so difficult that it is next to impossible for an intelligent man to run the gauntlet. In short, Scotland Yard considers a microscopical knowledge of London and its geography more important than the proper driving of a vehicle. That mistaken notion is believed to have much to do with the increasing difficulty of cab companies in finding drivers, for it is not easy to remember London's network of alleys.

## BUCKING THE SANTA FE TRAIL

Kansas City Motorists Meet Exciting Adventures on Endurance Run to Colorado Springs—Novel Entertainments.

Out Kansas City way the motto about hitching your wagon to a star seems as antiquated in the line of advice as it does elsewhere where horse-drawn vehicles are now the exception rather than the rule. The wagon has been more or less superseded by the motor car, but the point of attachment remains unchanged, except that instead of its being a star it is The Star, which annually co-operates with the Kansas City Motor Club in what is styled a trophy run, which this year started from that place on August 30 on a ten days' journey covering 1,565 miles, which the publicity agent declares will include 134 towns. The route is over the old Santa Fe trail where 60 years ago the advance guard of civilization was winding its dangerous, arduous way into the fastnesses of the Rockies and beyond. That path lies across Kansas to La Junta, Col., and thence south via Trinidad to Raton, N. M. From there the turn is northerly, retracing the way to La Junta and then to Pueblo, Colorado Springs and Denver. From the Silver City the turn is directly east to Kansas City, almost in a straight line.

Thirty-three contenders started in the run and, judging by the experiences of the first five days, they found few beds of roses. The participants had such a tough time that on the fourth night out the officials went to bed as soon as possible, letting such a little thing as the score schedule "go hang," until they had enjoyed a decent sleep. To quote one of the party: "The only harder test would be to drive into a stone wall at a 60-mile gait and give the prize to the car that is in the best condition then. Which car is the best? Any car that gets to Colorado Springs will do for anybody."

By way of sidelight, it may be stated that the Stoddard-Dayton soon lost its way, traveling 30 miles in a circle. After four hours wandering it struck a town at midnight and obtained its bearings. The passengers slept in a barn, arose with the lark and caught up with the procession at Dodge City.

The narrow mountain roads traversed could not be wilder. The straight drop at their edges is frequently from 1,000 to 1,500 feet. Nice place to meet some one speeding in the opposite direction! Consequently, an attempt was made by some of the authorities to keep other than tourists off such stretches, but it usually failed to work.

Fourteen cars were penalized on the

first day's run of 213 miles to Newton, Kan. All arrived by midnight except the Interstate No. 35, which burned out a bushing. Several of the penalizations were trifling, being for engine stops. The Auburn No. 3 incurred the heaviest penalty—59 points—in the dealers' class, having trouble with its brakes, which caused a collision with the Stevens-Duryea. The Auburn No. 41 in the owners' class came in with a piston lost, getting 180 demerits thereby. Loose brakes cost the Regal 42 points, while the Interstate No. 26 lost 41 points. Engine trouble cut the Perry's score 29 points. The Franklin No. 1 was taxed 8 points, the Auburn No. 6 3 points, and the Jackson and the Buick No. 18 2 points each. The Stoddard-Dayton, Falcar, Mitchell and Abbott-Detroit each lost 1 point. Ottawa and Empire were the largest places passed through. The Newton club gave a smoker for the tourists in the evening.

The second day's journey of 186 miles was to Dodge City via Great Bend, and as it rained smartly there was no end of trouble with gumbo as to tires and tire chains. The running schedule had to be cut three miles an hour, so many cars went into the ditches, where they had to be pulled out. There was a band out at Lyons, but the tourists were so wet they only half appreciated it. No scores were announced that night, as H. N. Strait, the referee, was among the missing. He was in the pacemaking Pennsylvania, which surrendered the flag to the Franklin No. 1. Strait taking a train to regain lost ground.

To La Junta, Col., the third day, was 220 miles, the longest run of the tour. It started amid rain, which soon ceased. Syracuse, Kan., was the noon stop. Bridges over the irrigation ditches kept the speed down. One bad spot near Garden City, Kan., was encountered, where many cars had to be pulled out. Bottles of sugar—Kansas beet sugar—were distributed en route as souvenirs. At Cimarron, Kan., a large sign was out stating the speed limit to be 50 miles an hour and a cop, wearing a huge star, threatened to arrest all those who did not keep up to it.

Holly was the first Colorado town reached—an oasis, after the desert wastes of Kansas prohibition. Naturally Holly was loaded for the travelers—with pints and quarts. The day came near proving serious for Henry Ashley, a guest of M. C. Nolan, in the Stevens-Duryea car, which went into an irrigating ditch where the wheels spun around helplessly in response to the engine. Two of the passengers, Ashley being one, got out and tried to assist. In doing so Ashley's left hand was caught on a tire nut, the flesh being torn several inches and an artery severed. Then the wheel went over one ankle. He had the nerve to hold the artery shut for 50 miles, until he could reach a doctor who sewed him up.

As no scores were made up the second day, the showing for the second and third days were combined. The third night in the owners' class the Auburns No. 41 and No. 39 dropped out of the running, leaving only the Franklin No. 38. In the dealers' division only the Great Western and Buick remained with perfect scores. Those out of the running were the Stoddard-Dayton, Jackson, Perry, Herreshoff, Interstate 35, and Auburn 24. The scores of the others were:

Haynes 25, 999; Carter Car 30, 999; Ford 36, 997; Maxwell 15, 997; Buick 18, 997; Buick 19, 996; Case 37, 996; Abbott-Detroit 4, 995; Falcar 34, 995; Reo 12, 994; Cartercar 31, 989; Franklin 1, 987; Maxwell 14, 987; Stevens-Duryea 8, 982; Auburn 6, 981; Speedwell 20, 979; Mitchell 32, 976; Regal 16, 938; Interstate 26, 929; Auburn 3, 816; Velie 11, 898.

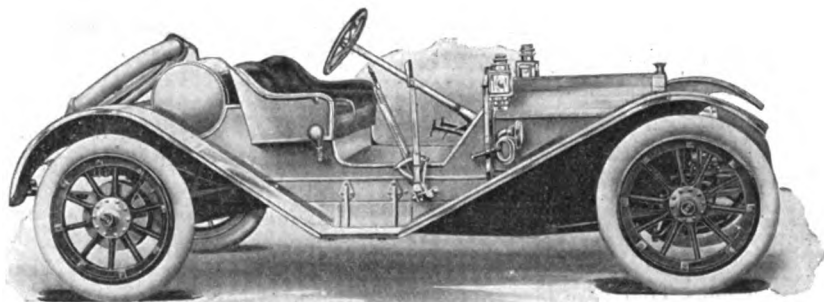
The fourth day's run ended at Trinidad, the business center of Southern Colorado. There the officials were so tired they decided not to get up the scores until they reached Colorado Springs. The day's run was 152 miles, the first 90 of which, across the desert, every one bumped the bumps continuously. That brought the party to Trinidad, where a brief stop was made before pushing on to Raton, N. M. The afternoon's run was smooth and dustless, but steep, return being made to Trinidad that night, where there was a Dutch luncheon in a coal mine and other great "goings on." The Trinidad Motor Club is a live organization and had much to do with the route that was selected. Local business and social clubs kept open house for the tourists. The only announcement in the way of scores forthcoming at that point was that the only perfect road showing remaining belonged to the Great Western. The total travel to that point was 790 miles.

Colorado Springs, reached via La Junta and Pueblo, was the end of the fifth day's trip, the Great Western retaining its perfect score to the foot of Pike's Peak. The Springs marked the end of the contest in the owners' class, which went to Mr. and Mrs. D. E. Gudgell's Franklin No. 38, the only car remaining. The penalizations as announced to Colorado Springs, with certain exceptions as noted, follow:

Cartercar 30, 999; Buick 17, score held back for decision on questioned rule; Haynes 25, 998; Ford 36, 997; Maxwell 15 (no report for Friday), 997; Case 37, 996; Reo 12, 994; Falcar 34, 993; Cartercar 31 (no report for Friday), 988; Franklin 1, 987; Kisselcar 10, 986; Buick 18, 985; Speedwell 20, 963; Mitchell 32, 921; Buick 19, 913; Velie 11, 900; Regal 16, 864; Interstate 26, 822; Auburn 3, 808; Stevens-Duryea 8, 695; Maxwell 14, 541; Stoddard-Dayton 40, minus 1,882; Abbott-Detroit 4, (not in when official list was made up); Auburn 8, withdrawn.

We waited until we had actually done so.  
The result is that the motor-wise among the trade

# The New S. G. V.



¶ The supply of adjectives and superlatives has been so nearly exhausted of things leads us to refrain from using them in describing the new S. G. V.

¶ Since S. G. V. cars will chiefly appeal to those who know what arouse instant interest.

¶ The car itself tells its own story; the specifications confirm it. The price

¶ The S. G. V. car is intended to be the realization in concrete form of one or two—not many. These we have dissected, studied, absorbed, and with painstaking perseverance. It was not merely a manufacturing proposition.

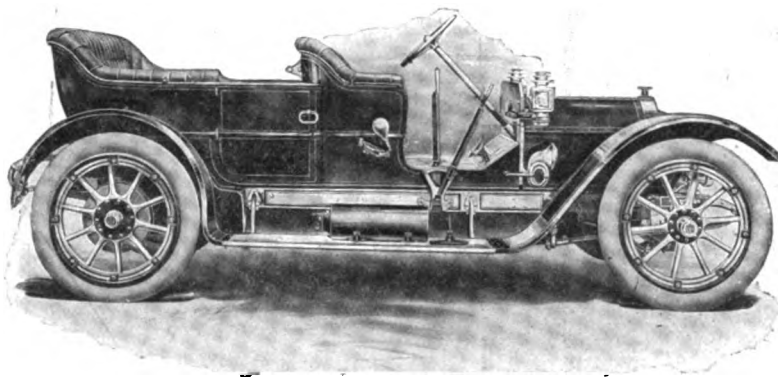
¶ BUT WE GOT IT. Every single S. G. V. car made will have its own story. The total number of S. G. V. cars this season is 300. These we plan to distribute to Philadelphia, Chicago, San Francisco and where we already have agencies.

¶ While but comparatively few may possess S. G. V. cars this year, we intend, we will send to anyone genuinely interested detailed information and

## ACME MOTOR CAR COMPANY

something before we started to talk about it.  
 The trade and public are now doing the talking for us.

# S. G. V. is the Reason



by motor car makers of high and low degree that some sense of the fitness  
 of the S. G. V. car.

A motor car ought to be, an intimation of what the S. G. V. is will usually

the policy of manufacture makes assurance doubly sure.

the type and class of car that America has not yet produced. Europe has one  
 in the main, faithfully duplicated. There was no haste; instead, patient,

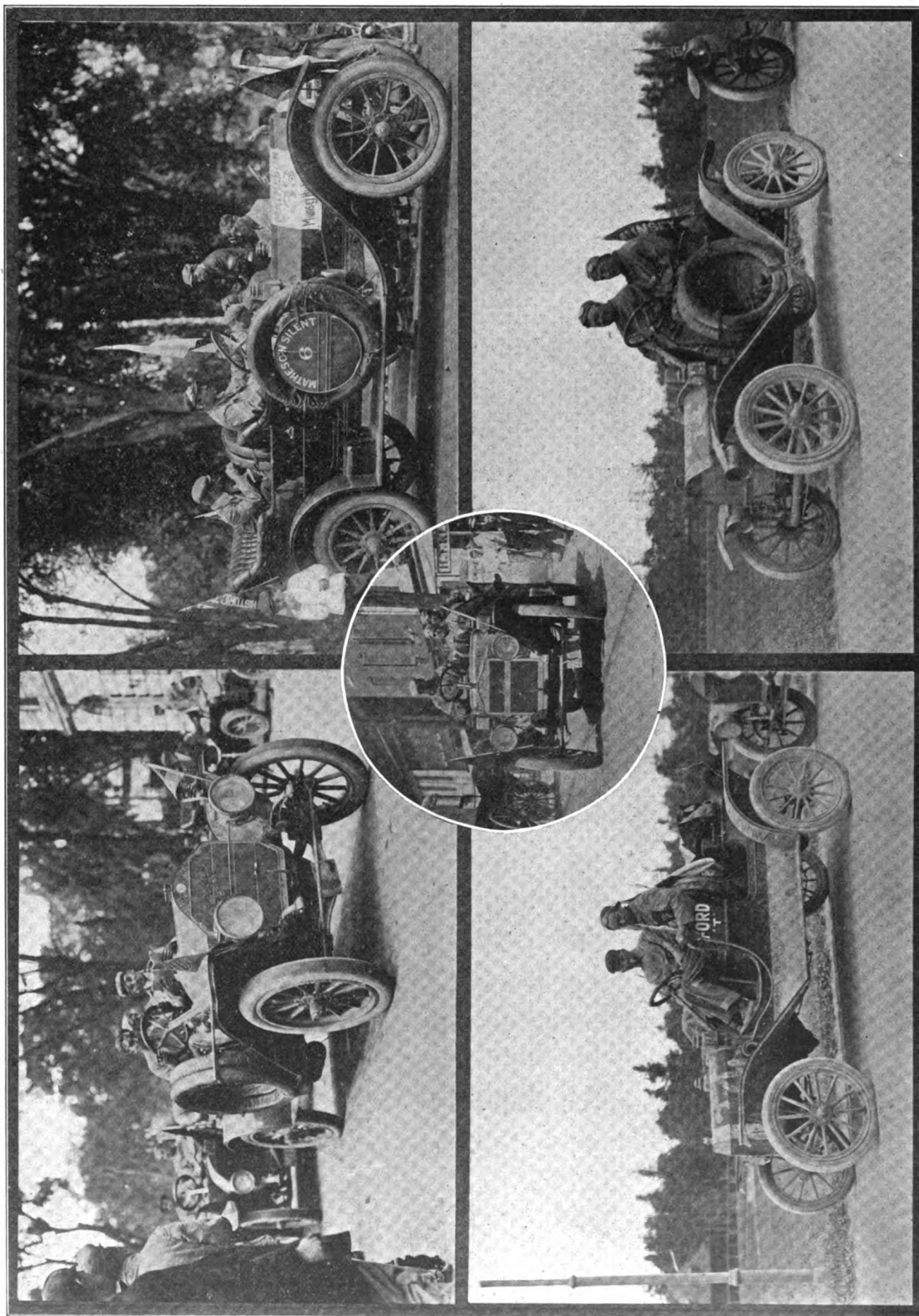
The soul of a motor car was what we had to have, and it was elusive.

It naturally means an extremely limited production. The possible output  
 through a half-dozen of the largest distributing centers, New York, Boston,  
 is established.

wish as many as possible to become familiar with what they are. To this  
 specifications. They are worth while.

**ANY, - - - Reading, Pa.**

## FIVE CONTENDERS THAT EARNED AWARDS IN THE MUNSEY HISTORIC TOUR.



L. H. SHAAB (STODDARD-DAYTON) \$2001-\$3000  
JAMES CHERRY (FORD) \$800-\$1200

H. E. WALLS (MAXWELL) SWEEPSTAKES PRIZE  
D. A. HALL (MATHESON) OVER \$3000  
D. E. MCCOY (BRUSH) UNDER \$800



**BLAZE THE WAY FOR A RAILROAD**

**Automobiles Help Railway President Lay Out Route in Central Oregon—Some Exigencies of Pathfinding.**

The old saying that "the railroad is the advance agent of civilization" must soon undergo revision, now that the automobile is being used to blaze the trail for railway engineers. L. W. Hill, president of the Great Northern railway, and a party of officials of that road recently covered 1,500 miles prospecting through grand country in Central Oregon, an experience that would have balked the pathfinder in many an endurance run. Less than 100 miles a day was shown by the speedometers. The



NEAR WARNER LAKE

start was made with three automobiles, but only one, a 40 horse power Studebaker, owned by the Oregon Trunk Line, and driven by George Cain, went through the entire trip. Six cars, all told, were used by the expedition at various times on the tour. Three or four times it was necessary to use block and tackle to pull the vehicles out of the mud. Often the running was through water several inches deep. Nevertheless the entire route planned in advance was covered, while additions were made to the trip.

Starting from Portland there were three automobiles, to which was soon added a fourth. A second car, owned by Porter Bros., got as far as Buck mountain, about 58 miles from Burns. There it struck a "high center" and was left for repairs. The

third car, owned by Mr. Hill, broke a spring at Prineville, and was also left for repairs, with instructions to return to Portland. Returning to Shaniko, rains and bad roads were encountered, and there were more

the Lakeview trip. Mr. Hanley's automobile then came through the remainder of the way to Portland.

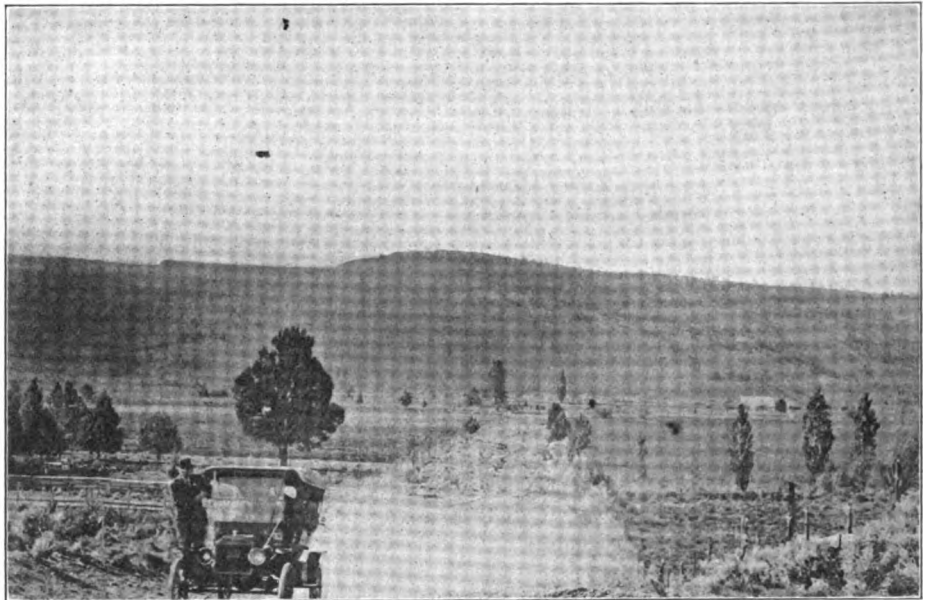
In the Antelope Canyon, about 20 miles from Shamlin, the Oregon Trunk car mired



ROUGH GOING IN CENTRAL OREGON

break-downs. Finally, after reaching Portland, the third car was started down the valley to meet Mr. Hill and became wedged in a railroad track at Oregon City, causing the breaking of a steering knuckle, and was loaded on Mr. Hill's private railroad car.

and was pulled out with block and tackle. Another incident of this kind was at Warner Lake, 45 miles from Lakeview. High water had overflowed the approach to a bridge across a narrow neck connecting two lakes. The same car mired in the over-



VIEW NEAR KLAMATH FALLS, ORE.

William Hanley's automobile met the party at Cross Keys, between Shaniko and Madras, and continued with the travelers to Prineville. When out of Prineville 25 miles a front wheel was broken. Repair parts were sent for and the car overtook the party at Klamath Falls, making a run of 187 miles from Prineville in one day, but missed

flow, but again block and tackle brought it through. The route followed by the Hill party cannot be recommended to the average automobile tourist, although by making detours, later in the year, the same points can be reached without serious inconvenience or damage to a strongly built car. From Shaniko to Cross Keys, via Antelope,

the road is somewhat rough. One good rain makes it impassable for automobiles, as much of the soil is gumbo. A few sunny days puts the road in shape, however, so that it is passable. From Cross Keys to Madras, Redmond, Bend and Prineville the roads are excellent at any season. For a few miles out of Prineville on the stage route to Burns the road is rough. The road climbs steep ridges and there are a few long grades, but the run of 150 miles with careful watch for "high centers" can be made in one day. The last 60 miles into Burns is as good as can be found in Oregon, with the exception of the macadamized roads leading in and out of Portland. There is a smooth highway from Burns for 75 miles to the "P" ranch, but between there and

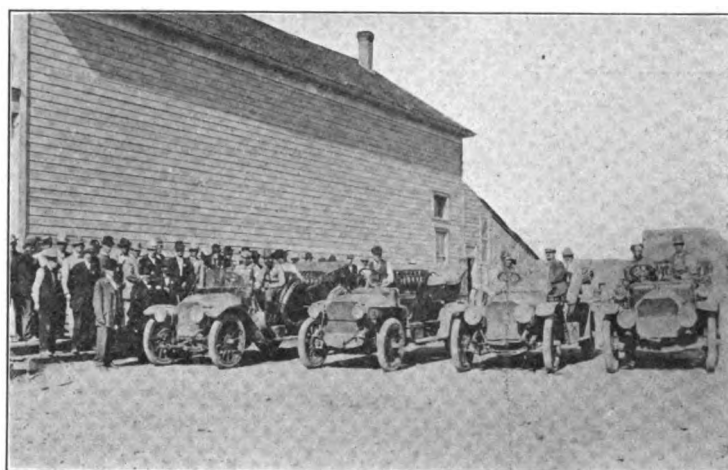
Klamath Falls. From there the route followed over the Siskiyou is extremely rocky and hilly more than two-thirds of the 65 miles. A good road, however, can be found by a detour into California, making this part of the trip 110 miles long. Rogue River valley highways are capital and there is a smooth but typical mountain road to be followed in gaining the Umpqua valley from the Rogue. A similar climb and descent is required to reach the Willamette valley from the Umpqua.

The 1,500 miles covered was not wholly in journeying from point to point. At Lakeview a trip of 60 miles was made in the Goose Lake valley, at Klamath Falls a side jaunt of about equal length was taken southward, while at Medford there was a

port of the Chamber of Commerce for Wiesbaden states that 33 hotels and restaurants there failed last year. Among these were some of the largest and most modern hotels, equipped in magnificent style. The sharp competition existing between these establishments, the heavily increased cost in maintaining them, and the generally unfavorable economic conditions are given as the chief causes of these failures. The guests who come for a cure by means of the well-known mineral waters have not increased in number, nor has their expenditure of money counterbalanced the increased number of hotels and restaurants and the enhanced costs in taxes, food and materials, wages, etc. The city having made heavy outlays for public improve-



ON THE PRINEVILLE-BEND ROAD



LEAVING MADRAS FOR PRINEVILLE

Warner Lake there is a stretch of 40 miles laid across bedrock. For the entire distance it is slow traveling, and racking on a car. Another and better route is afforded between Prineville and Lakeview, taking the tourist via the "P" ranch, another Hanley property, but in the spring the lowlands that must be crossed are too wet for travel, so that this route is passable only during the dry season.

The route taken by the Hill party from Lakeview to Klamath Falls was roundabout, so as to visit the Chewaucan and Summer Lake valleys. Automobile stages are running daily between the two towns over a somewhat rough road 100 miles long. To take in all the Chewaucan one must follow ranch roads of tolerable quality and open about a dozen gates. After leaving Summer Lake valley there is a long, smooth stretch of road through the Fort Rock country on which high speed can be made. After the forest reserve is reached the road is still good, but winding. From Crescent south to Klamath Falls, the road is smooth but serpentine. So sharp are the turns among the trees that high speed cannot be made with a large car. To avoid a rough road down the lake shore the party loaded the cars on a steamer at the Klamath agency and rode 40 miles down the lake to

tour of 91 miles in the Rogue River valley, and short runs were made from Ashland, Grant's Pass and Roseburg. On these side trips the roads for the most part were rough and severe on the cars.

#### How Health Resorts are Suffering.

Perhaps the most peculiar result of the greatly increased touring habit on Continental Europe has been the remarkable falling off in number of patients at the famous "Kurorte" in Germany. The number of people taking the medicinal baths at Wiesbaden, Carlsbad and other famous spas, has decreased considerably, while at the same time the number of hotels and restaurants catering to them has increased. The touring motorists who were expected to furnish a good deal of trade for the hotel keepers in these spas refused to be cajoled into paying the extravagant prices demanded when they could obtain the same or even better fare at places a few miles distant, to which they could motor in an hour or so. As a result of this increase of automobilists and decrease of "staying" patients a large number of the best hotels in Germany have gone into bankruptcy.

Speaking of this phase of the effects of automobile touring, Consul Richard Guenther of Frankfurt, says: "The annual re-

ments, and projecting additional ones, to attract foreign visitors, has ordained a general tax according to which even tourists who do not use the waters must now pay if they extend their stay beyond two days. Baden Baden has recently adopted a similar ordinance for taxing tourists. This innovation is to procure additional revenue to meet the increasing municipal needs."

#### The Tourist and His Decorations.

Among the many things for which the automobile is responsible is a rival of the numerous American traveler whose proudest possession is a trunk or a suit case plastered with foreign hotel labels. The automobilist, however, does not go abroad but merely follows a well worn touring route in the east on the line of which he accumulates small vari-colored pennants bearing the names of the towns through which he passes or in which he lodges overnight. The pennants are attached to the windshield rods or other parts of the forward structure of the car, which when thus decorated suggests a yacht dressed for a gala occasion. As a means of making the individual conspicuous and causing remark these pennants have the hotel labels "beaten to a frazzle."

## TWO COUPE MODELS ARE ADDED

American Line Comprises Nine Types for 1911—Seven Have Underslung Frame—Changes in Details.

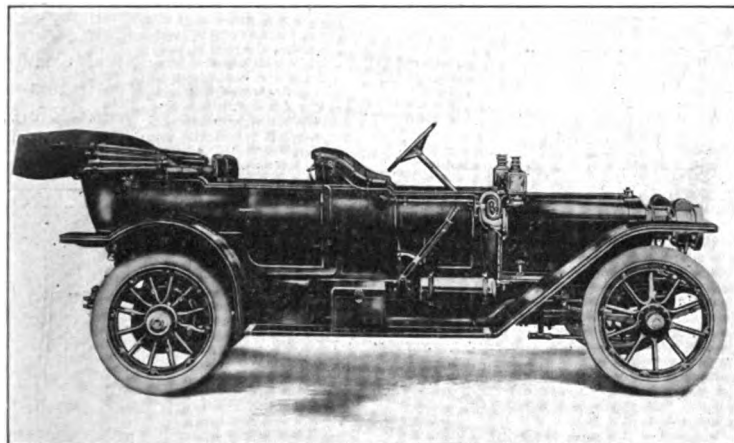
Introducing the coupe in two and four passenger models as additions to the line, the American cars for 1911 are presented in nine models by the American Motor Car Co., of Indianapolis, Ind. Seven of the

way. The crank case has an oil capacity of one and a half gallons. The Roadster, Roadster Special and Speedster models have an auxiliary oil supply of eight gallons. The remainder of the models have an auxiliary supply of two gallons.

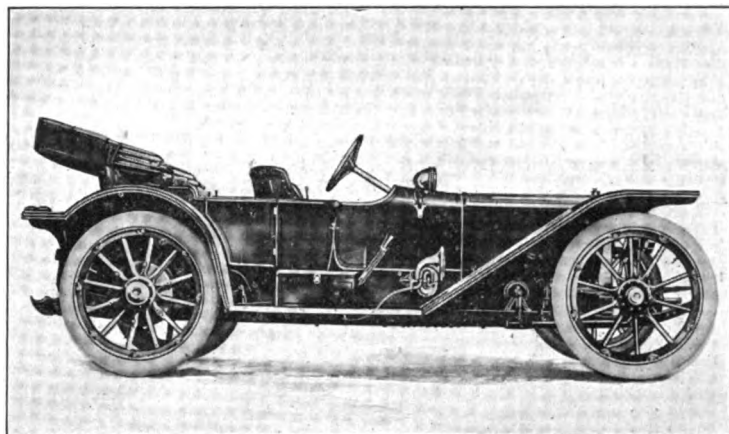
All models have engines of four cylinders cast in pairs. The cylinders are offset. In the Special, the Speedster and Traveler Special the motors have the inlet valves directly over the exhaust, the valves being operated by a rocker arm. The dimensions

ster, Roadster Special, Roadster Coupe, Speedster, Traveler, Traveler Special and Traveler Coupe will have the underslung frame, giving low center of gravity and permitting the car to attain high speeds without danger of skidding or overturning. This method of weight suspension assists in making possible a straight line from the universal joint to the differential, conserving engine power.

In the matter of road clearance, the point is made that the clearance of the American



AMERICAN TOURIST



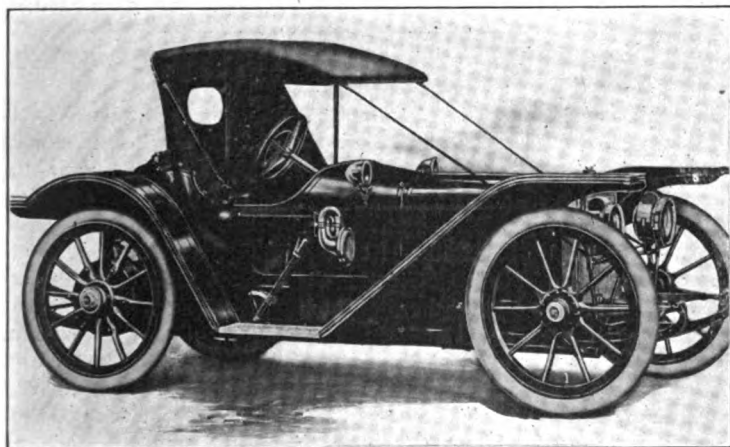
AMERICAN SEMI-TORPEDO TRAVELER

models are made with the underslung frame which has been characteristic of the American, while the tourist and limousine types will have the conventional or overslung frame in relation to the spring suspension. In the main the changes that are disclosed in the new offerings in comparison with their predecessors relate to refinements and simplifications of detail.

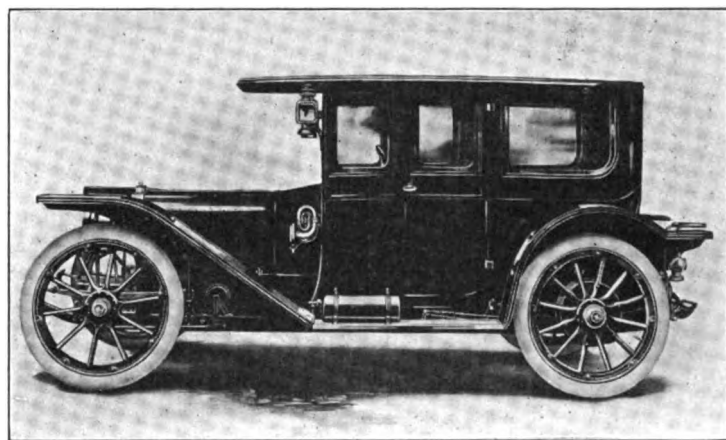
of the cylinders in the 50 horsepower models are  $5\frac{3}{4} \times 5\frac{1}{4}$ , while in the 60 horsepower the bore is  $5\frac{3}{4}$  and the stroke  $5\frac{1}{4}$ . The ignition is Bosch high tension dual system, single unit coil, kick switch and storage battery, with both systems operating through the one set of spark plugs.

Left hand drive and center control are used in the two and the four passenger

is two inches more than 80 per cent. of the cars built. In the Traveler, the Traveler Special and the Traveler Coupe models the clearance is  $12\frac{1}{4}$  inches, while the Roadster, the Roadster Coupe, the Tourist and the limousine models have eight inches clearance when equipped with 36 inch wheels and ten inches when equipped with 40 inch wheels.



AMERICAN TORPEDO ROADSTER



AMERICAN TRAVELER COUPE

Perhaps the greatest innovation is the concealed oiling system, which will be common to all models. The oil is forced by a gear driven pump contained in the crank case. A brass tube is cast in the crank case, leading from the pump to two flexible steel tubes which convey the oil to and from the indicator on the dash. Ample precautions are taken against the possibility of the oiling system being damaged in any

coupe new models, which have the underslung frame. Passengers and driver enter at the same door. A removable seat allows the driver to get in position behind the wheel. All the underslung models have been lengthened as to wheel base by two inches over previous models. The two passenger cars have 112 inch wheel base and the other models have a wheel base of 124 inches. The models known as Road-

Detail changes, in addition to giving an increase in the chassis length so as to permit larger doors and more room in the tonneau, also are in evidence in the provision of rubber inserts under the wired asbestos clutch facing to facilitate easy engagement; pressed steel brake drums; forged rear axle sleeves; forged front axles, and what are described as "spiral gears in the transmission for constant mesh gears." An-

other minor improvement is the simplified arrangement of the air pressure indicator, oil sight indicator and Bosch kick switch. These are sunk almost flush with the toe boards, doing away with a cumbersome coil and adding to the smooth appearance of the car.

The transmission gearing is arranged for four speeds forward and one reverse, with direct drive on the fourth forward speed. The control is an irreversible worm and sector steering gear, with eighteen inch steering wheel bearing spark and throttle levers on a stationary sector. An accelerator pedal or foot throttle also is provided. The cars have complete equipment, including top with slip cover, shock absorbers on the rear axle, Continental demountable rims with two spares, Prest-O-

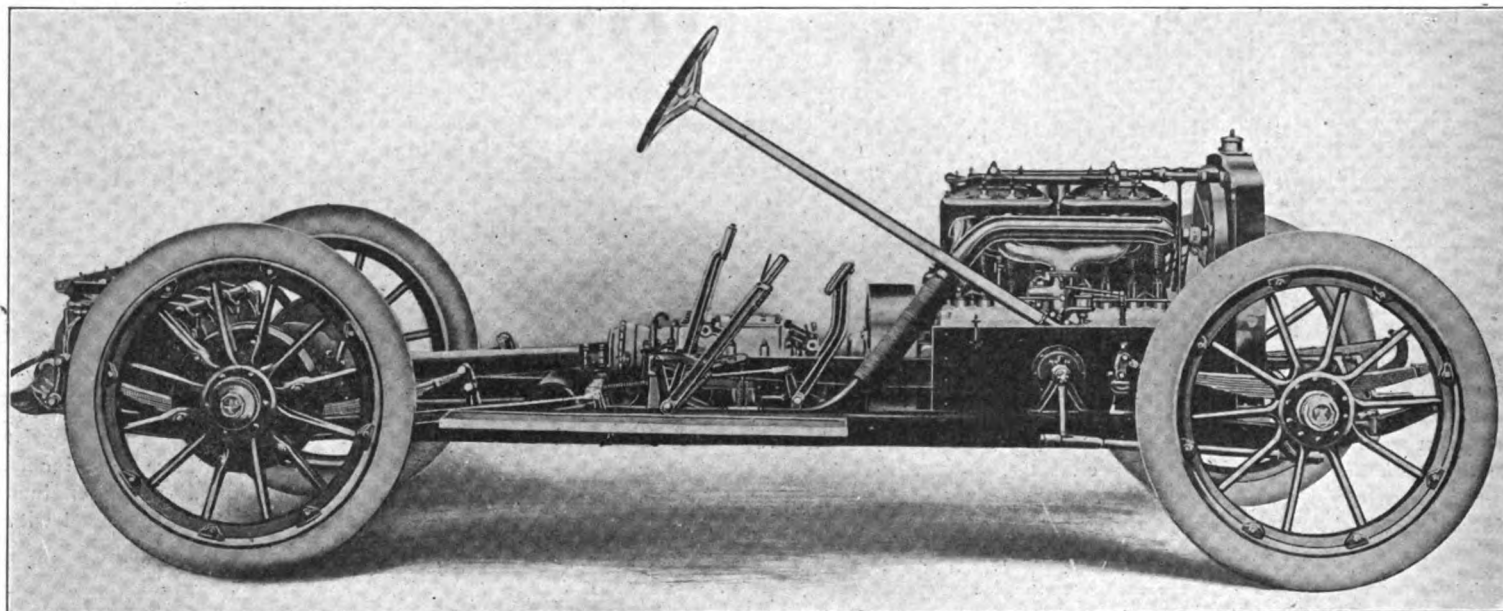
## RESUMES STANDARDIZATION TASK

**Society of Automobile Engineers to Continue the Movement—Appoints Committee for the Purpose.**

Standardization of automobile parts and materials is to be attempted on a large scale by the Society of Automobile Engineers, which has appointed a committee for the purpose, and the work also will extend to such matters as machine tools, engineering methods and practices. Several standards already have been established, resulting from the work of the Mechanical Branch of the Association of Licensed Automobile Manufacturers when that depart-

screws, gasoline connection, throttle levers and holes in same, water connections, and gaskets; automobile nomenclature; frame sections. The matter of sheet metal alone involves the consideration of the chemical composition, dimensions and standard of measurement of clutch discs, brake drums, body panels, mufflers, radiators, fenders, hoods, pans, fan blades, hub caps, dashes, steps, running boards, miscellaneous stampings, and many other parts.

The committee consists of Howard E. Coffin, president of the Society (ex-officio); Henry Souther, Hartford, Conn.; James H. Foster, Hydraulic Pressed Steel Co., of Cleveland, O.; H. S. White, Detroit Seamless Steel Tubes Co., of Detroit, Mich.; Charles T. Jeffery, Thomas B. Jeffery Co., Kenosha, Wis.; Elwood Haynes, Haynes



SIDE VIEW OF AMERICAN UNDERSLUNG CHASSIS

Lite tank, full lamp equipment, spare tire irons, horn, tool kit and jack.

No boasts are indulged in by the company concerning any enormous increases in production. During 1910 it built 300 cars and for the coming year the output will be 400 machines, and in order that every one of them may be good the factory at Indianapolis has been considerably enlarged, so that 80,000 square feet of floor space is available in the plant.

### Torpedo or Touring Car at Will.

For 1911 all Jackson cars will be of what is styled the "convertible torpedo" type, which is to say that they will be provided with a device which permits the attachment and removal, at will, of front doors and the beveled torpedo front or dash. The device will allow purchasers to convert their Jacksons from torpedos to standard touring cars, or vice versa, within 10 minutes, and thus to appear to possess practically two cars in one for the cost of only one car.

ment of the association was active. These are known as the A. L. A. M. screw standard and drill sizes, spark plug sizes, solid and adjustable yoke and eye rod end specifications, and the A. L. A. M. horsepower formula. The Society of Automobile Engineers has undertaken a continuation of the work of the now defunct engineering department of the motor car manufacturers' organization.

Subjects now in hand by the standardization committee of the Society include the specification and heat treatment of automobile materials; the indexing and digesting of automobile engineering literature; the compilation and publishing of an automobile engineer's hand book or pocket book; seamless steel tubing; sheet metal; lock washers; limits for screws and taps; round-cornered square holes and keyways; brake and clutch lever forgings; practice in plain and anti-friction bearings; wood wheel dimensions and fastenings for solid tires; shackle bolts; carburetter flanges, outlets, bolt-hole centre-distances, cap

Automobile Co., Kokomo, Ind.; H. W. Alden, Timken-Detroit Axle Co., Detroit, Mich.; Arthur Holmes, H. H. Franklin Mfg. Co., Syracuse, N. Y.; W. H. Van Dervoort, Moline Automobile Co., East Moline, Ill.; D. F. Graham, New Departure Mfg. Co., Bristol, Conn.; G. F. Merryweather, Motch & Merryweather Machinery Co., Cleveland, O.; A. C. Bergman, Simplex Automobile Co., New York; and Coker F. Clarkson, the secretary, 1451 Broadway, New York. Further enlargements of the committee will be made as necessary. Various sub-committees are being assigned to the work of investigating the separate matters involved.

### Year's Guarantee for Great Western.

The Great Western Automobile Co., of Peru, Ind., has inaugurated a one year's guarantee system in connection with the 1911 Great Western "40." All cars will be guaranteed against defects, and the company will replace free of charge, for one year, any part of a car made by it.

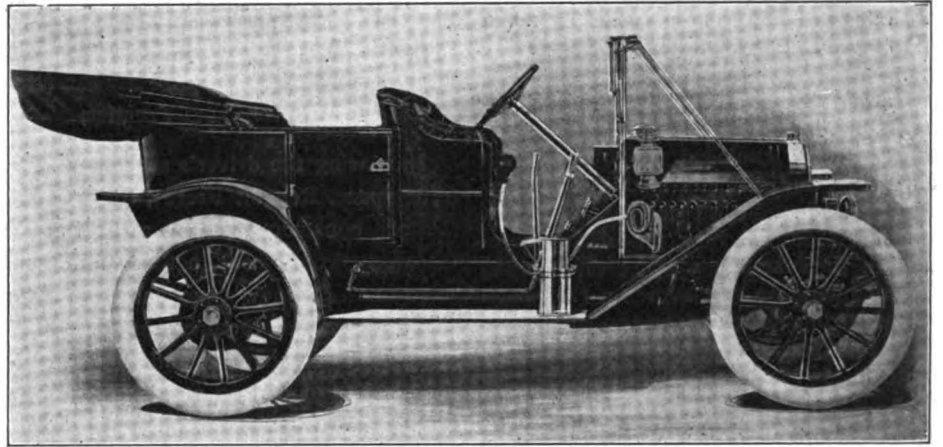


## MORE POWER AND LARGER BODIES

Moline's New Offerings Have Increased with Two Types of Body.

Dimensions—"Dreadnought" Chassis

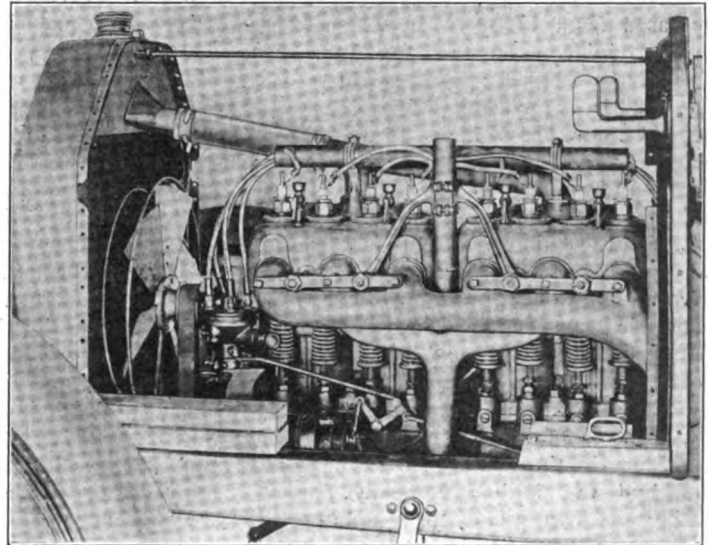
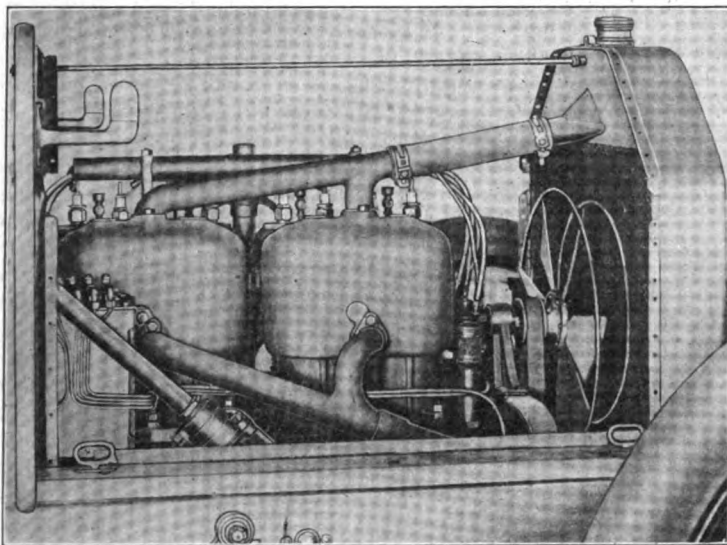
Much larger in many respects than the 30 horsepower offerings for 1910, the Moline for 1911 is produced in a single type of chassis and has a 35 horsepower engine. "Dreadnought" is the designation given the new product by the Moline Automobile Co., of Moline, Ill. It is supplied in two models or styles of body, known as the Touring type and the Toy Tonneau, respectively. The former is for five passengers, and is deep, roomy and luxuriously upholstered, its seating proportions being very liberal. The small tonneau model is for four passengers. It is low in the seats and side



MOLINE 5 PASSENGER TOURING CAR

five passenger models have a full set of lamps and tool equipment, the only difference between them being the size and style of the body.

valves on one side. It is of the long stroke type, the bore remaining at 4 inches, as for 1910, but the stroke being increased from 4½ inches to 6 inches, developing 35



RIGHT AND LEFT SIDES OF THE MOLINE 35 HORSEPOWER ENGINE

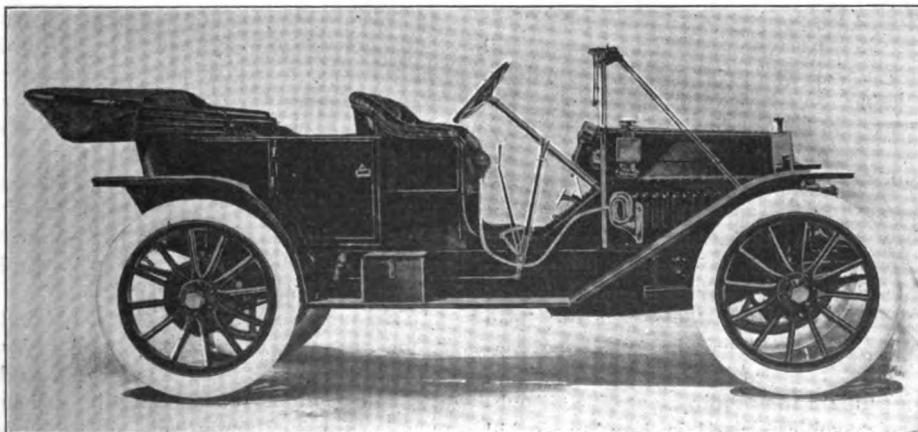
panels, and is designed to present a somewhat striking appearance. The tonneau is removable, so that the car may be converted into a single rumble or a two passenger roadster. Both the four and the

Following general Moline characteristics, the "Dreadnought" chassis has a unit power plant with three-point suspension in the frame of the car. The motor has its four cylinders cast in pairs, with all the

horsepower at moderate piston speed. Thermo-syphon cooling is continued, eliminating the use of a pump and its gearing.

For the ignition a double independent system is provided, comprising a Splitdorf magneto set and a battery set with distributor and coil. Each operates through a separate set of spark plugs, so that in case one system should fail the other is available.

Desirable improvements also have been made in the lubricating system for the 1911 offering, a Precision oiler being used, with individual leads to the main bearings, the crank case and the cylinders. Splash lubrication from the oil pan of the motor gives further assurance of ample lubrication for all working parts inside the crank case. The oil pan is provided with a leveling device which serves to keep the oil level in the crank pits of all four cylinders, no matter whether the car be going up or down hill or on a side grade. The



MOLINE 4 PASSENGER TOY TONNEAU



lubrication of the transmission and of the rear axle and differential gear is taken care of by an oil bath for all the revolving parts.

A leather faced cone clutch with cork inserts is used, as in the 1910 models, the bearings being enclosed as a protection against dust and dirt and against the unintended introduction of grease. The foot pedal levers in the new model are compound in their action, making them much easier of operation and avoiding the possibility of letting the clutch in too suddenly.

Four foot pedals are used, in addition to a shift lever for the sliding change gear and a lever for the emergency brake, which is interconnected with the clutch, so that the latter disengages when the emergency brake is applied. The clutch and the service brake each has its pedal, the other two being for the accelerator and the muffler, respectively. The spark and fuel control reside in two small levers on the top of the steering wheel pillar. Both the internal and the external brakes have been increased from 12 to 14 inches, and each set is double acting, having full effect whether the car is moving forward or back. The wheels, which heretofore have been 34 inches, now are 36 inches, fitted with  $3\frac{1}{2}$  inch tires, and the wheel base has been increased from 110 to 112 inches.

Emphasis is laid on the fact that with a moderate output and concentration on one type of chassis the company is in a favorable position to produce cars of moderate price. It is asserted that the Moline is in no sense an "assembled" car, as the members of the company, under the firm name of Root-Van Dervoort Engineering Co., are manufacturers of sixteen years' experience in the making of gasoline motors, and the Moline company has developed its own plant to a point where only a minimum call is made on outside parts specialists.

#### Tire Information on a Wall Hanger.

The necessity of inflating pneumatic tires to the correct air pressure is now pretty generally recognized as a means of getting due mileage from the tires. But in order to place this information where it constantly can be referred to by the motoring public, the Firestone Tire & Rubber Co. have prepared a wall hanger for garage display, containing a complete list of tire sizes and the corresponding air pressures. This hanger also illustrates and describes various types of tires that are now in use and the rims they will fit. Of special interest to motorists whose tires are not large enough for the load, is a list of eleven oversize Firestone tires. These tires are interchangeable with present tires on present rims, but are built considerably heavier and contain from 30 to 50 per cent. greater cushion of air, adding greatly to the easy riding of the car and reducing the ultimate tire cost.

## NEW BUS PRODUCED BY RENAULT

### Driver's Seat is Placed Over the Engine

#### —Rear Axle Differs Somewhat from Conventional Practice.

In placing the driver's seat above the engine space, Renault Freres, the well-known French constructors, have arrived at rather a novel arrangement in their new omnibus chassis. The new type has been built to conform to the requirements of the Paris General Omnibus Co., and the first of the new series of chassis at present are undergoing road tests at the factory.

The general arrangement of the power plant is much the same as that employed on the standard five ton chassis, but this leads to the unusual disposal of the radiator at the rear of the seat and on either side. The cooling system is of the standard Renault gravity circulation pattern, with projections on either side of the engine casing, containing about a half dozen tubes. The front of the chassis has a wooden dashboard, on top of which is mounted the lubricator, with a hand-hole in front to give access to the motor. The entire cab is readily demountable. In accordance with the demands of the service for which the buses are constructed, the driver's seat is placed on the left, with the control levers centrally mounted.

The motor is of the four cylinder form and of approximately 411-32 by 69-32 inches, bore and stroke. The inverted-cone type of clutch is used, and the gearset is of normal construction and affords three forward speeds. The rear axle is the chief point of departure from standard practice. In this structure the differential casing is carried in a heavy cradle, tubular extensions to which house the driving shafts to the road wheels, much as in the case of the ordinary live axle.

In use, the cars will have transverse seats, this necessitating the mounting of a secondary structure over the main frame at sufficient height to secure the proper overhang. The wide platform at the rear is built on a channel steel frame. Solid tires are used. In regular service, benzol will be employed for fuel, instead of gasoline, this being the standard supply for the Parisian omnibus equipment.

#### Declares Front Braking Dangerous.

Considering the amount of attention that has been paid to the subject of front wheel braking in England, it is rather interesting to note the reason why the application of this type of retarding device has not been extended more widely. In brief, the reason is that the Scotland Yard authorities, who formulate the requirements for all public service vehicles used in London, forbid their use as "dangerous." In connection

with tests carried out a year and more ago, it was required to apply the brakes sufficiently hard to lock the wheels while the car was rounding a turn. Under this test, a car having front brakes failed to pull up within the required distance and slid around the turn.

Although advocates of front braking pointed out at the time that the locking of the brakes was incorrect manipulation, since it is important to prevent the wheels from slipping in order to secure the maximum braking effect, the Scotland Yard representatives present insisted that as the law required the use of brakes sufficiently powerful to lock the wheels, and as the application of the brakes to their full power might be practiced at any time by an incompetent driver, the test was a perfectly fair one. In consequence of this stricture, therefore, front brakes can be applied only when the standard form of equipment also is used in the rear.

#### Concerning Rust and Corrosion.

Leading up to Toncan metal, which they manufacture, the Stark Rolling Mill Co., of Canton, O., have issued a very comprehensive treatise on the subject of corrosion of steel and iron, which sets forth, clearly and concisely, the facts concerning corrosion and rust, how and why they differ, their causes and what should be done to overcome them. Some interesting comparisons are made of old time iron and modern iron and steel, which comparisons make clear the fact that the degree of purity, homogeneity and density largely govern the life of iron and steel. The results of many comparative tests are shown by tables and illustrations, and these results will undoubtedly be of great value and interest. The general tone of the treatise is in line with the ideas of such eminent metallurgists as Cushman, Walker and Sang. No attempt is made to delve deeply into chemistry nor the fine points of metallurgy. The simplicity of the English is a prominent feature, particularly when the technical nature of the subject matter is considered. The many uses to which a rust-resisting product like Toncan metal is adaptable are described and illustrated. The illustrations throughout are fine halftone reproductions of photographs; the printing is in two colors, and the buff cover embossed in French vermillion, altogether as attractive a piece of printing as one would care to see.

#### Refinishing Leather Surfaces.

For use in refinishing leather surfaces a well-known authority recommends the following liquid japan formula:

"To four pounds of molasses add half a pound of lamp black, half a pound of sweet oil, and an equal quantity of gum arabic, also half a pint of isinglass. Mix well in 16 pounds of water; apply heat, and when cool add one pint of alcohol."

## AVOIDS THRUST AT DEAD CENTER

Ingenious Crank Movement Designed to Aid Engine Efficiency—Details of the Foord Device.

Because in the standard form of gas engine construction the explosion occurs just at the instant when the crank and connecting rod are in the dead center position considerable loss of power may be supposed to occur. Indeed, were it not for the momentum of the fly wheel to carry the linkage over the dead point, no expansion of the gas could take place, and consequently the engine could not run. In consequence of this incidental disadvantage many attempts have been made to improve the mechanism

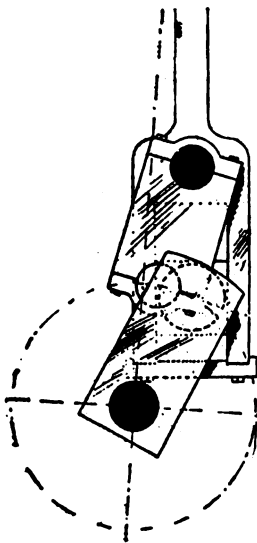


Fig. 1

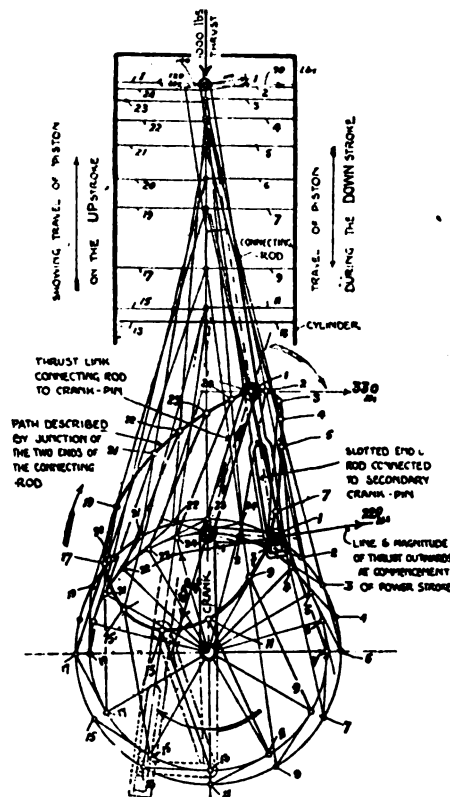
by retarding the movement with relation to that of the crank at certain points in the stroke and accelerating it at others.

The most recent device of the sort, while decidedly "freakish" in appearance, nevertheless presents useful study of the subject and offers decidedly interesting possibilities in the way of improved engine performance. It is the invention of J. Kilby Foord, an English engineer, and is embodied in the new Foord engine. The accompanying Figs. 1 and 2 show the nature of the mechanism. A double crank pin construction is employed, the main "big end" bearing of the connecting rod being mounted in a block that slides in a slot provided in the lower end of the rod. The secondary crank center is connected to the rod, at a point some distance above its lower end, by means of two flat coupling links. The secondary center also is offset to the rear of the main crank pin to the amount of perhaps 20 degrees.

The effect of this arrangement is to cause the piston to dwell on dead center for a greater period than with the ordinary crank

motion, so that when ignition occurs, at a later time than with the ordinary engine, the crank will have advanced materially beyond the dead point. The downward thrust of the gas then is expended to better advantage than is possible with the direct method of connection, the result being a reduction in side thrust against the cylinder walls and a stronger turning impulse early in the stroke. It is needless to add, that for this advantage, due compensation must be returned to the system on the up stroke.

A review of the finer theoretical points of the system, including a layout of the mechanism throughout the cycle of its movement, is quoted from the opinion of a



PLOT OF FOORD CRANK MOTION

British engineer, as printed in the Auto Motor Journal. Says this authority:

"Retarding the travel of the piston during the first half, and accelerating it correspondingly during the second half of the explosion stroke, may not appear a very important question at first sight, but on consideration it will be seen that for internal combustion engines run at the very high rates of angular velocity obtaining in present day automobile practice, a decided advantage would result if the piston of a motor run at a high shaft speed could be retarded in its rate of advance during the first half of the stroke relatively to the advance of the big-end of the connecting rod along the crank circle; that is, the crank-pin of a motor running with a piston speed of 900 feet per minute will, with a stroke of  $4\frac{1}{2}$  inches, advance 30 degrees from the dead center or zero position in

0.004 of a second—i. e., 1-240th, and the piston 0.037 of its stroke; and further when the crank has arrived at 90 degrees the piston will have traveled 0.6 of its stroke, provided the connecting rod has a length of three cranks and the axis of the cylinder is in line with the center of the crank shaft. Again at half-stroke of the piston, by which time the crank will have advanced 80 degrees, the angle of the connecting rod will be 19 degrees to the axis of the cylinder, and the side-thrust at mid-stroke equal to 0.3 of the total pressure on the piston. Of course with longer connecting rods these differences are less, also when the center of the cylinder is placed out of line with the shaft, a disposition that works to best advantage in an engine having no negative resistance during the return as by compression, as clearly the gain in having a more direct thrust on the down-stroke is counteracted by the increased angle at mid-return stroke, when a rod of three cranks

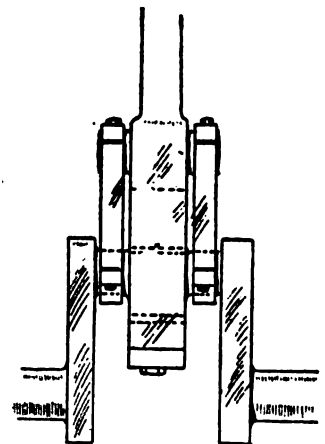


Fig. 2

in length would swing over to a maximum angle of 26 degrees. . . .

"The latest retarding device for the purpose of communicating a differential motion to the piston of a high-speed explosion engine relatively to that of its crank during the first half-stroke is, as will, no doubt, be gathered from an examination of the accompanying diagram, somewhat of a paradox. The peculiarity in the 'Kilby' compound differential crank-motion consists in the extraordinary action of the rod relatively to the piston, for, as will be seen by the illustration, the rod swings nearly 8 degrees from the perpendicular with the piston at the end of its stroke, the secondary crank-pin 1 at this period being 30 degrees in advance of the zero position 23 indicated on the outer circle. In explanation of this movement it must be stated that there are in reality two cranks separated by an interval of 30 degrees, the several positions of the two pins on this compound crank being indicated for clearness sake by a double circle; the inner crank-pin is connected to the piston rod by a thrust link and the slotted end of the rod pivoted to

## THE MOTOR WORLD

the piston is connected to the outer crank-pin by a bearing block having a sliding fit, the several positions of both of which are indicated at 15 degrees and 30 degrees intervals for one revolution.

"During the complete down-stroke the rod remains at an inclination to the cylinder line, ranging from 8 degrees to 12 degrees, and even the side thrust that would result from this small inclination is to a considerable extent neutralized by the thrust from the connecting link in the opposite direction; thus, at the zero position with a pressure of 1,000 pounds on the piston the net side thrust on the piston is 40 pounds, i. e., 140 pounds less 90 pounds, and at mid-stroke downwards the side thrust is almost negligible.

"This combination of compound rod and crank is thus seen to have the advantage of a straight line thrust in so far as the piston is concerned, and as the ratio of travel of the piston indicated by the lines on the cylinder diagram, 1, 2, 3, 4, 5 and 6—during the first half of the down-stroke, is clearly much greater than the ratio of travel during the last half of the stroke, indicated by the lines 9, 11 and 13—this novel and interesting motion would appear to be a decided improvement on the ordinary connecting rod, when applied to an explosion engine having a high speed of rotation; but as the two-fold gain derivable from the more direct thrust on the piston, and to its retarded advance during the period required for complete combustion of the charge, is obtained at the expense of doubling the bearings of the connecting rod, in addition to the sliding block for one of them; to making the rod in two parts, and lastly to doubling the cranks on the driving shaft—the net advantage is one difficult to exactly foretell. It must not be overlooked either that whatever advantage may be gained by lessening the piston friction, and by the higher thermo-dynamic efficiency that may be reasonably expected, there is to be set off from this the extra friction due to increased weight and number of parts."

#### Relation of a Car to Punctures.

Under the title "The Automobile on Which Tire Punctures Are Rare," the H. H. Franklin Manufacturing Co., Syracuse, N. Y., has sent out a neat little booklet in which it tells about the tire equipment of Franklin cars, and the records in mileage put up by them. These records make a formidable list and tend to prove what the Franklin company always has claimed, that the Franklin is a car that is "easy" on tires.

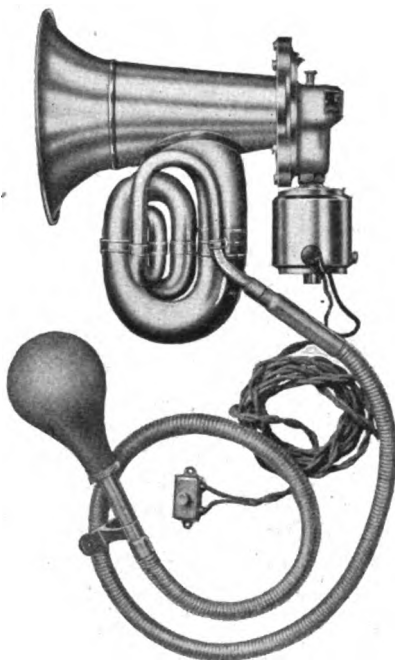
#### Mexican Show Project is Abandoned.

Mexico City is not to have an automobile show next winter. American promoters and some of the local automobile dealers have been pushing the project for a large exhibition, to be participated in by American manufacturers, but the enterprise now has been dropped.

## PRESS EITHER BUTTON OR BULB

One Gives Long Range Signal, the Other Sounds the Horn—Ingenious Two-in-One Instrument.

Combining a powerful warning signal for country roads and a mild signal for city streets and crossing, a new instrument, which is a distinct accessory novelty that is thought by many to "solve the problem" and which is known as the Combination Klaxon, has been brought out by the Lovell-McConnell Mfg. Co., of Newark, N. J. As shown by the accompanying illustration, the device is a combination of



THE COMBINATION KLAXON

the Klaxon electric horn with a vermiculate reed horn, both having their sound outlet in common in the one bell. By reason of its combination with the Klaxon, the reed horn is claimed to have its deep vibrant tone intensified and strengthened, the Klaxon diaphragm acting as a sounding board for the reed signal and the peculiar shape of the Klaxon projector serving to strengthen and direct its force. The combined instrument, which sells for \$50 complete, affords two warning signals, one for long distance and emergency use and the other for short range use. The button for the Klaxon and the bulb for the reed are side by side, enabling an instantaneous choice as to which signal shall be used.

#### Fitting New Carburetter to Old Car.

Fitting a new carburetter to an old car by no means is as simple an undertaking as it may seem, particularly if the new apparatus happens to involve a different method of heating from that which previously has been in use. If, for example, the new car-

buretter is water-jacketed, whereas its predecessor was heated from the exhaust manifold, particular care is necessary. The water jackets on the engine must be tapped in such a way that uniform circulation of water will be ensured, while it also is important to make sure that the circulation over the cylinder walls is not impaired. Perhaps the greatest difficulty the average amateur mechanic will have to contend with, however, is that of leakage from the pipe joints. To prevent this it is important to see that the new carburetter is firmly held in position, the piping laid out so as not to be strained in making the attachment, and also that due allowance is made for lost motion between the motor and the frame of the car, to which the carburetter usually is attached.

#### Effect of Renewing Valve Springs.

Although it seldom is considered necessary to renew the exhaust valve springs on motors that appear to be in good condition as far as the valves are concerned, there is good reason to believe that such a procedure not infrequently would give beneficial results in securing a more prompt closure of the valves. It is known that under some circumstances the strength of an exhaust valve spring of the common helical type may decrease as much as 35 per cent. in the first six months of use.

#### From Testing Room to Test Track.

With an eye to facilitating the road testing of its cars the Regal Motor Car Co. has just constructed a testing track which circles the testing house at its Detroit plant. The arrangement permits the cars to be run directly on the track from the test house, after they have there been given complete stationary tests, and subjected to the standard running tryout without necessitating their being put on the public highways at all.

#### Road Dust in the Carburetter.

The use of well-made "sod-pans" on cars of the better class has done away with a good deal of the old carburetter trouble that used to result from the entrance of road dust into the ports controlled by the automatic air valve. But this trouble is not altogether eliminated. On cars which have been in use for some little time, dust deposits frequently are responsible for irregular running and other troubles arising directly from defective air valve operation.

#### Blames Cars for Higher Carriage Prices.

Blaming the automobile factories as responsible for great increases in the cost of labor and materials for the carriage trade, the Carriage Manufacturers' Association of North America, in session at Louisville, Ky., last week, has decided that an increase in the price of vehicles is necessary. The percentage of increase necessary is not indicated.

**ALL WELCOME EXCEPT JERSEYITES**

**New Decision of New York State's Attorney-General Removes Restrictions on Visitors—Reverses Himself.**

After all, New York will be satisfied with half-portion reciprocity, even a highly trained legal mind having found it possible and advisable to reverse itself. Attorney-General O'Malley is the possessor of the mind in question. His recent famous and apparently sound decision to the effect that the exemption from registration and unqualified freedom to use the roads of New York granted by the Callan law to resi-

the number of visits or the lengths of the stays of the visitors, such restrictions practically have been dead letters anyway.

**Proclaiming a 24 Hours Victory.**

Wyckoff, Church & Partridge, the Stearns agents in New York, have been making the most of the Stearns's victory in the recent 24 hours race on the Brighton Beach track, in which a new record of 1,253 miles was set up. The huge sign displayed on their handsome building, shown by the accompanying illustration, is one evidence of it, and the remarkable part of it is that the New York firm is sharing the glory. The sign mentions also the several items of the car's equipment, including Continental tires, Bosch magneto, Witherbee batter-



HERALDING A TRIUMPH AND SHARING THE GLORY

dents of other states offering "like exemption" means exactly what it says, caused the storm of protest that was expected, and it was so strong that O'Malley was unable to withstand the pressure.

Accordingly he indulged in a second "think," and discovered that any old exemption from registration accorded New Yorkers by other states, whether for one day or 30 days, was good enough to meet the law and as a result of his change of mind, the motorists of New Jersey are practically the only ones who cannot enter New York at will and stay as long as they please without payment of a fee of any sort. As New Jersey exacts an "admission fee" from everyone, New York's door is closed to its citizens to whom it will open only when they pay the same fees as are paid by New Yorkers themselves.

As none of the states limiting non-residents to short periods has discovered efficient means of "keeping tabs" on

ies, Prest-O-Lite tank, and all parts were lubricated by Havoline oil. The Stearns agents also have figured out that the car's average,  $52\frac{1}{4}$  miles per hour, is faster than the time made by the 20th Century Limited over a roadbed with few curves, while the Stearns car negotiated 2,506 curves during the race, with a greater number of stops than the famous train between New York and Chicago.

**"T. R." Places His Order for 1911.**

Although it is but little more than a couple of months since "T. R.," otherwise Theodore Roosevelt, personally purchased a Haynes car, he already has placed his order for a 1911 model of the same make. And James A. Braden, of the Diamond Rubber Co., has arisen to remark that in his order Col. Roosevelt again has specified that Diamond quick detachable tires, 34 x 4 inches shall be the equipment of his new car.

**DISCOVERS NEW "FRAME UP" GAME**

**Dealer Tells of Neat Trick of Rivals for Spoiling a Demonstration—Vigilance is Needed.**

It is by devious ways that the wily salesman goes through the successive steps of "catching," "showing" and "landing" his prospective customer. But of all the artful little practices that are brought into service when it is not only the prospect's incredulity but the counter efforts of a rival salesman that have to be combatted perhaps none is more adroitly worked and less often detected than is the frame-up demonstration. Like any other bit of chicanery, much of the detail of the frame-up demonstration depends upon the circumstances, and so, too, upon the individual taste and cunning of the framer-up.

An illuminating and not too complicated example in point is furnished by G. W. Garland, a New York dealer. In this case the party addressed is supposed to be the victim of the "frame," while the guileless intending buyer is an innocent accessory to the deal. You and the plotter are in hot pursuit of the same prospect and matters have progressed to the point where the scene is shifted to the state of Missouri, figuratively speaking. As Garland explains it the proceedings will follow somewhat as follows:

"First, the dealer will challenge you to a hill-climbing contest or a speed test. He will offer to bet any amount of money you will cover. You believe he has an especially prepared car for the competition, so you decline. Your rival then lets it be known that you are afraid to compete against him and tells his customers he will force you into some kind of a contest or other.

"Then the dealer's representative, posing as a prospective customer, will call on you, and make it appear that he wants a nice easy demonstration. This will put you off your guard and you are likely to send him out in the first car at hand whether it has been tuned up or not, and probably you will be just as careless about the driver. At least that is what occurred in my case, and the inexperienced driver fell an easy victim of my competitor's scheme.

"Your competitor will meet your car somewhere along the road and start to badger the driver. He will offer to bet a hundred, a thousand or any other amount of money that his car can beat your car climbing hills or on the flat. The driver will probably get fussed and then your rival can mold him to his will. He will then prove to the satisfaction of his customers that his car is as good, if not better, than yours."

### How Motors May Affect Milk Prices.

Ever increasing as is the economic influence of the motor car, it is not often realized to what an extent the motor truck enters into the important, almost vital, problem of supplying the big cities with provisions. In Boston, Mass., for instance, the milk supply of late has been very uncertain because of the refusal of the wholesalers to pay the prices demanded by the farmers. The latter claimed to be unable to deliver milk at the old figures, while the wholesalers declared they could not afford to pay the advance and the railroad charges. At this stage of the proceedings the motor car entered and admitted of a solution of the difficulty. H. S. Pinkham, one of the largest producers of milk in Clinton, Mass., is installing a number of powerful motor trucks capable of carrying 100 cans from Clinton to Boston in two hours. He advises the farmers of the neighborhood to band together and also buy several of these trucks, and then to deliver the milk from their farms in Boston direct.

"The automobile is going to ring down the curtain on the contractor who has been sitting in his office in Boston and reaping the reward that rightfully belongs to the farmers," he says. "These big trucks can leave Clinton at midnight and be in Boston at two o'clock in the morning, in time to leave the milk at the door of the consumer for breakfast. This can be done and milk sold at retail at a lower price than today, and the result will give the farmer a bigger profit for his labor."

### What They Did to a Popular Official.

After a fake arrest by a bona-fide motorcycle policeman, on a charge of speeding and throwing dust in an officer's eyes, Will H. Brown, vice-president of the Willys Overland Co., at the Overland factory in Indianapolis, Ind., was conducted first to the police station and then to the factory for a mock trial before a jury of friends and employes, where he was defended by President John N. Willys against the vigorous prosecution of James E. Kepperly. He was finally acquitted, after which the foreman of the jury presented him with a jeweled Mystic Shrine pin, the gift of the employes of the company. He also was given a camera. Speeches, music by the Overland band, ice cream cones and cigars helped celebrate Brown's "acquittal."

### Why Special Signals for Police Wagons.

Claiming that the "hurry-up" wagon of the Sioux City police department was hindered in the performance of its duties by officious police officials who failed to recognize it and who halted it for speeding, Superintendent of Public Safety R. S. Whitley has perfected plans to make the car easily distinguished from all other automobiles, both day and night, by adding to

it a whistle, peculiar to this car and protected from imitation by special ordinance, and a glaring red light in front between the white lights. Supt. Whitley says this step is necessary because the police car is in duty bound to exceed the regular speed limits in the city in emergency calls, and he intends to make conditions such that the car will have the right of way in the streets of the city and suburbs at all hours, with the least possible annoyance.

### Good Roads Convention Dates Advanced.

Complying with the request of the American Contracting Engineers for a joint meeting, the dates for the third annual national good roads convention at St. Louis, Mo., have been changed from October 6-8, the original setting, to September 26-29, permitting both bodies to work in conjunction. The coming gathering of road builders promises to be larger and more productive of results than ever before, and will be attended by prominent members of all bodies having an interest in the good roads movement, including the National Grange, Farmers' National and Co-Operative Union, United States Office of Public Roads, American Automobile Association and various automobile clubs.

### Murder Mystery in Pennsylvania Garage.

While laying a pipe line under the floor of a garage at Point Marion, near Pittsburgh, Pa., on Saturday last, W. L. Harvey, proprietor of the place, unearthed the mutilated body of his former manager, Frank Ringle, aged 54 years, who mysteriously disappeared from his home on August 16th. The authorities are investigating the matter, and have arrested Louis Laurier, an employe of the garage, charging him with murder and robbery, Ringle having had \$100 in his pockets before he disappeared, and not a cent being found on his body.

### Motors for Mails in Constantinople.

Motor cars and motorcycles are to be employed by the postal authorities in Constantinople in the future. Tests have proved that these vehicles can be utilized to good advantage over the roads of the Turkish capital. A parcels post service has been decided upon in which motorcycles will be used for rapid and certain work. Motor cars will be used for collecting mail and conveying it between the substations in the city.

### Healthfulness of Gasolene Vapor.

Fumes from motor omnibuses and other gasolene driven vehicles are powerful insecticides, according to a London chemist. The creosote vapor exuded from the exhaust pipes, he says, is not only a fly killer, but as carbonized matter it clears the air of germs and other impurities. Other Londoners, however, declare the vapor a nuisance, even though it be healthful.

### Cost of Spattering Mud on a Gown.

Sentencing a motorist to a fine for careless driving, the payment of damages to a woman whose dress was ruined by flying dirt and the costs of a suit which was carried through all the courts to the very highest in the land, the president of the "Oberlandesgericht" of Saxony rendered a decision of the greatest importance to all motorists touring in the Kingdom of Saxony. He said, in substance, that "Automobilists should exercise due care when driving along a road generally used by pedestrians, so that flying dirt or mud would not reach the latter. In case the road is wet, an automobile should not be driven at such a rate as would cause water to be thrown further than two feet from the wheels. If an automobilist ignores these warnings and causes damages to the clothes of pedestrians on such roads, he is liable to damages equal to the original cost of the dresses or other clothes ruined." The motorist whose many appeals brought forth this opinion from the supreme bench had driven along a muddy road at a 15-mile clip and spattered a woman's dress with mud for which he paid 2,500 marks in costs alone, and in addition a fine of 100 marks, and damages of 200 marks, or about \$700 in all.

### Two Dead Dogs Lead to Court.

"Which has the right of way—an automobile or a dog?" is the important question that is being thrashed out in two court cases in Riverhead, Suffolk County, Long Island. Two canines met with untimely deaths under the wheels of motor cars. Nate Downs is suing Luther B. Chambers of Port Jefferson, and Capt. George A. Vail is suing Chauncey Young of Riverhead. Downs wants \$50 for his plain pup, while Vail places the value of his late lamented beagle hound at the same amount.

### Bookworm Now Blames the Automobile.

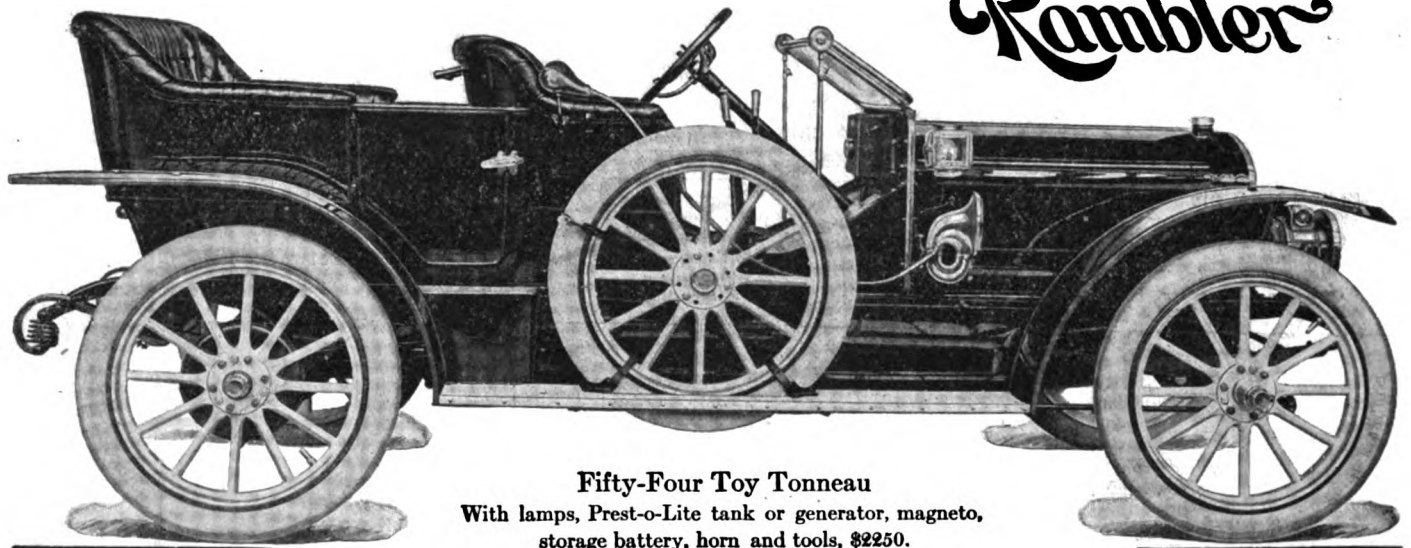
Complaints as to the evil influence of the automobile may be heard in many quarters just now, but of them all perhaps, the one least likely to arouse the industry to the need of arising en masse for purposes of self-defense is that of the City Librarian of Bloomington, Ill. The Keeper of the Books asserts that the automobile and the moving picture show are responsible for the recent depopulation of the local reading rooms. Those who can, resort to automobile touring, all others to the moving pictures.

### Where Drivers Greatly Exceed Cars.

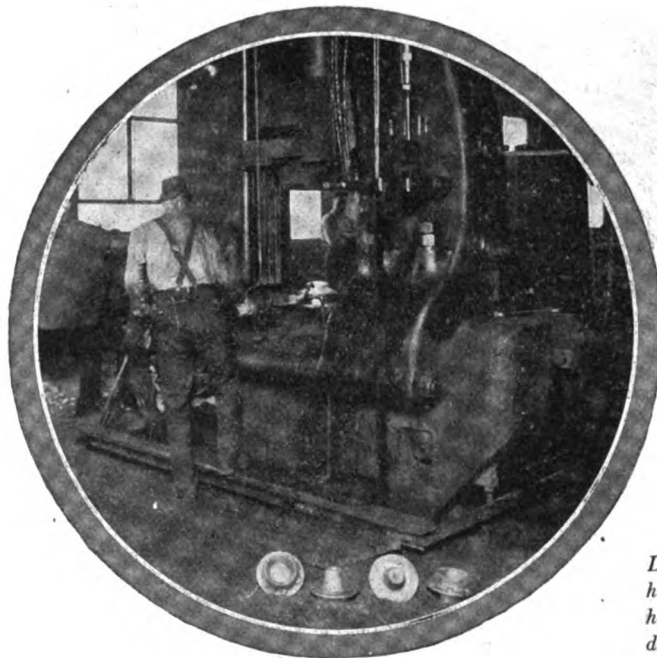
During last year the London county council issued no fewer than 27,535 drivers' licenses under the motorcar acts. The number of motorcars registered during the year was 7,196. This is a somewhat strange reversal of American conditions, where the number of registrations always exceeds that of the licenses for drivers.



# Rambler



**Fifty-Four Toy Tonneau**  
With lamps, Prest-o-Lite tank or generator, magneto,  
storage battery, horn and tools, \$2250.



*Drop forging Rambler  
hubs with fifty ton steam  
hammer in Rambler  
drop forge shop.*

All Rambler parts are made from patterns, jigs or dies designed and made entire by the Rambler experts. Steering knuckles, gears, cam shafts, valves, connecting rods—in fact, all forgings but the crank shaft are drop forged in the Rambler shops.

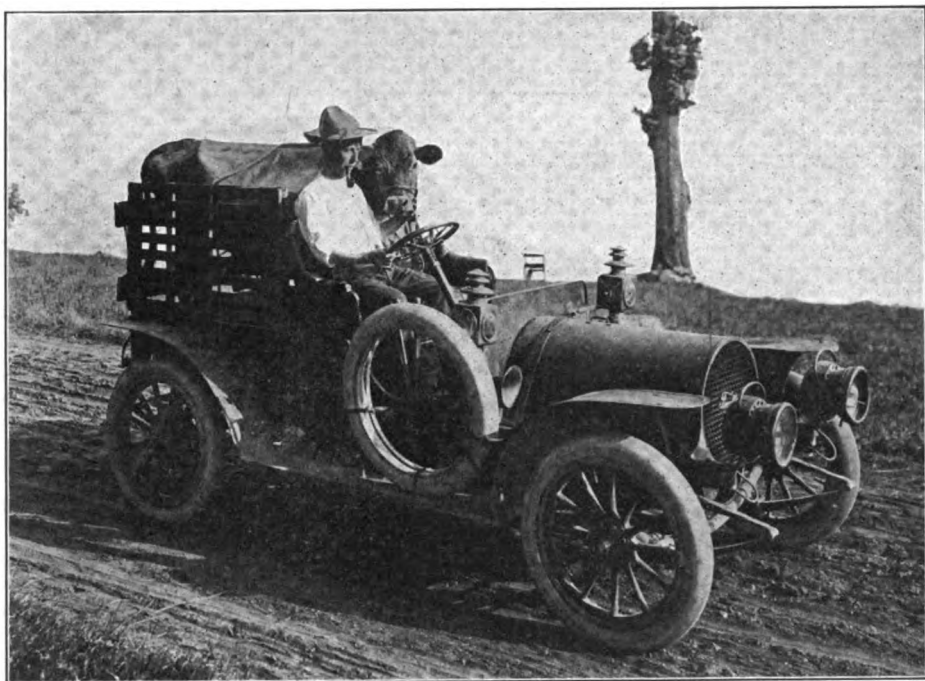
## The Thomas B. Jeffery Company

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**"VERSATILITY" OF THE MOTOR CAR**

**Two Widely Separated Instances Illustrating Its Usefulness for Farmerfolk—  
How Live Stock is Conveyed.**

While the automobile often has been used to carry baggage, trunks, or even farm products from the country to the city, its utility as carrier of live stock



HOW THE NEW YORK FARMER CARRIED HIS COW

rarely has been appreciated. That it is possible, nevertheless, to transport cows, calves and other live stock to and from the farm by means of an ordinary touring car is clearly proven by the accompanying illustrations, in which a Reo and a Franklin are shown in this utilitarian role.

The Franklin, which has as passenger a full-grown cow, is a 1906 model of twenty horsepower and is guaranteed by the owner to have run 100,000 miles since it left the Franklin factory at Syracuse. His farm is at Cleveland, N. Y., and the run from Syracuse, 34 miles, was made in an hour and a half with the cow in the improvised stall on the chassis.

On one occasion the Franklin car was utilized in transporting two young calves from Syracuse to the farm, and Mr. Wheeler, the owner and driver of the car, loaded them into the front seat, held their heads with one hand and steered with the other, while another man beside him kept the animals from falling out.

The Reo also has a four-footed passenger in the space where the tonneau usually is, and from the resigned expression on the face of the man standing alongside the car, it must have been something of a job to get its live cargo aboard. Once it was safely anchored in the roughly built stall,

however, the little Reo took good care of its unusual passenger and carried its burden without trouble to the farm, many miles from the town in Iowa where the animal was bought.

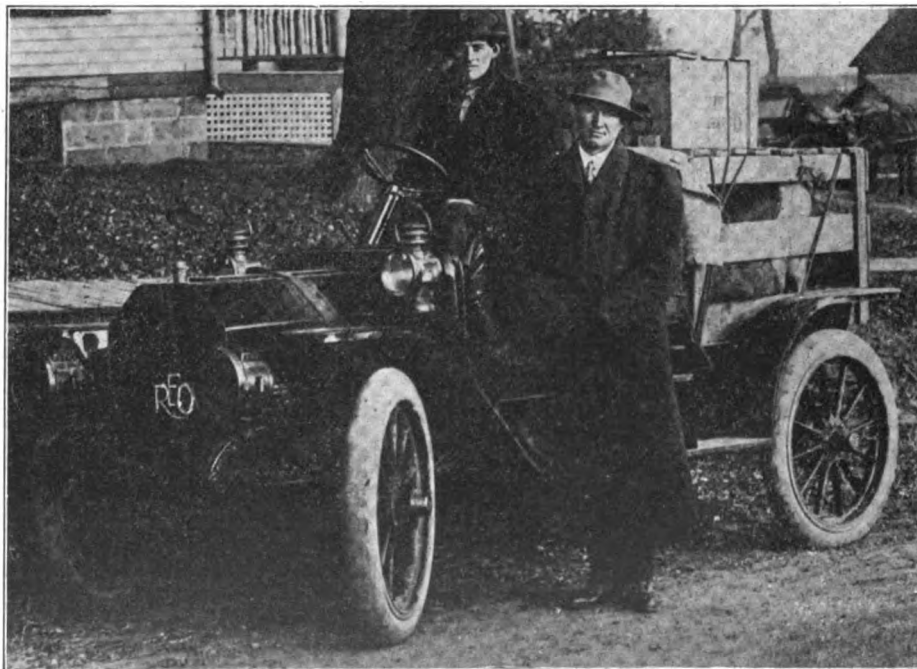
**National Park Opened to Automobiles.**

Automobiles and motorcycles may now be driven through the General Grant Park in California unmolested. The Secretary of the Interior has decided that the park

**THE RIGHTS OF THE PEDESTRIAN**

**Germany's Supreme Court Rules that He Can Walk Anywhere on the Road—  
Injured Soldiers Obtain Damages.**

Ever since automobiles began to use the roads of Germany, there has been expected a clash between the military authorities and the local police department in connection with the side of the road on which columns of infantry ought to march. The military regulations allow the commanding officer of marching troops to choose the side of the road best suited to walk on, while the police regulations distinctly name the right side of the road to be used by vehicles under any and all circumstances. A foreign automobile which happened to run into an infantry column which was on the wrong side of the road, and to hurt some of the soldiers, brought the matter into court. Criminal and civil proceedings against the chauffeur and the owner of the automobile were instituted, with the result that both were sentenced to pay damages. The defence, in appealing the case, claimed that in so far as the military regulations conflicted with the police regulations, the former were illegal; but the appellate court as well as the highest court in the Empire, the Reichsgericht, decided that the military authorities were within their rights, and that no law could be found which com-



THE IOWAN, TOO, MAKES HIS CAR DO DOUBLE DUTY

roads are of such a character as to permit operation of motor vehicles without danger to the occupants of horse drawn conveyances.

pelled pedestrians to walk on the right side of a country highway. The appeal was thrown out and the decision of the lower court affirmed.

RECENT PATENTS.

964,589. Road Vehicle Suspension Arrangement. Frederick Walton, London, England. Filed Sept. 9, 1909. Serial No. 516,966.

1. In a vehicle suspension arrangement of the kind described, the combination with an annular tubular air spring of two compression springs, and two tension springs arranged at right angles thereto within the space surrounded by the annular tubular air spring, shoes carried by the compression springs to support the inner peripheral portions of the tubular air spring, and saddle shaped members connected to the tension springs and also with the tubular air spring.

964,632. Vehicle Wheel. Sebastian Ziani de Ferranti, Grindelford, England. Filed Nov. 14, 1907. Serial No. 402,185.

1. In combination in a wheel, a hub having relatively movable members; a rim; a plurality of tension spoke units each movably engaging with each of said hub members at certain symmetrically disposed points, each of said spoke units being rotatable about an axis passing through its points of engagement with said hub members together with means for detachably securing said spoke units to said rim.

964,637. Oil Feeding Mechanism. Guido Fornaco, Turin, Italy, assignor, by mesne assignments, to F. I. A. T., Poughkeepsie, N. Y., a Corporation of New York. Filed Feb. 17, 1909. Serial No. 478,455.

1. The combination in an oil feeding system with an engine, a reservoir and a pump, of means for supplying the bearings

with oil under pressure and manually controllable means adapted to indicate an obstruction to the flow.

964,783. Armor for Pneumatic Tires. Charles E. Huxley, Chicago, Ill. Filed July 23, 1909. Serial No. 509,080.

1. A tire armor comprising round, flexible strands or cables arranged to extend transversely across the tread of the tire and being in contact with each other at the tire tread and laterally overlapping each other at their ends at the sides of the tire, and fastening means engaging the ends of said strands or cables for fastening them upon the tire.

964,845. Coin Control for Motor Vehicles. Alexander P. Brower, Brookline, Mass., assignor to Lawrence F. Sherman, trustee. Filed Aug. 28, 1909. Serial No. 515,063.

1. The combination in a coin-controlled mechanism for automatically controlling the operation of motor-propelled vehicles or vessels, of a sparking or other operating circuit provided with a gap arranged to be closed by a coin or token, a coin retaining and releasing device having electrical connection with one terminal of said circuit, a member arranged to be contacted by the coin and having electrical connection with the other terminal of said circuit, and means operating independently of said circuit for maintaining said coin retaining and releasing device in coin retaining position for a relatively long predetermined period.

964,847. Speed Changing Mechanism. Frederick C. Brunhouse, Philadelphia, Pa. Filed Aug. 23, 1909. Serial No. 514,145.

1. In a speed changing mechanism, a driving shaft, bevel gears of varying diameters secured thereon, a two-part driven shaft, a differential mechanism operatively connecting the two parts of said driven shaft, a differential case, a disk secured thereto, annular gears concentrically mounted upon said disk, pins secured to said annular gears and slidable in openings through said disk, and means for actuating said pins, substantially as described.

964,977. Tire Protector. Joseph L. La Driere, Albuquerque, N. Mex. Filed Jan. 31, 1910. Serial No. 541,135.

In a tire protector, the combination with parallel rings; of sections of concavo-convex form in cross-section, each section being formed in one piece and having a square end and also having at its opposite end an outwardly extending flange curved in conformity to the major portion of the section and provided with an outer square edge and receiving the opposite square end of an adjoining section and also having inwardly bent portions at the ends of said flange and curved arms depending from said bent portions and arranged in transverse alignment with the flange and provided with outwardly extending lugs in which are apertures oblong or elongated in the same general direction as the transverse curvature of the section and which apertures loosely receive the said rings.

964,979. Spring Wheel. John Lee, Oelwein, Iowa. Filed May 16, 1908. Serial No. 433,172.

1. A vehicle wheel comprising a spoke rim having flanges on its sides, one of said sides being removable, an outer sectional



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rim having its sections arranged between the sides of said rim and adapted to move radially, guides located upon said sections, resilient yokes carried by said sections and adapted to extend from one section to the adjacent section, means for pivotally connecting the adjacent ends of pairs of said yokes, said means engaging said guides, and resilient shock absorbing means between said yokes and said spoke rim.

965,014. Steering and Cranking Mechanism for Motor Driven Vehicles. Byron C. Riblet, New York, N. Y. Filed Nov. 13, 1909. Serial No. 527,838.

1. In a motor driven vehicle, the combination of the steering wheels, and gas engine having a crank shaft, with the telescoping cranking shaft and steering post operatively connected with the engine crank shaft and steering wheels respectively, and a crank removably mounted upon said cranking shaft.

965,030. Hill Climbing Wheel. Daniel C. Slaght, Easton, Pa. Filed Aug. 18, 1909. Serial No. 513,500.

1. In a vehicle wheel the combination of an axle; a gear wheel concentrically mounted thereon; a second gear wheel surrounding said first gear wheel eccentrically mounted on said axle and intermeshing with said first gear wheel; means permitting said axle to rise and move eccentrically with relation to said second wheel when an obstruction is encountered; and an eccentric ball bearing carried by said second gear wheel; substantially as described.

965,076. Tool for Putting on and Removing Pneumatic Tires. Louis Felix Carle, Courbeovic, France. Filed March 19, 1909. Serial No. 484,480.

1. An apparatus for mounting and removing pneumatic tires comprising an inner member adapted to rotatively engage the hub of the wheel, an outer member slidably engaging the inner member, and a cross piece on the outer member comprising at one side an outward hook adapted for engagement with the inner face of the bead of the tire and a shoulder for bearing against the outer face of the rim to cause the removal of said bead from within the rim and at the other side an inward hook adapted for engagement with the inner face of the edge of the rim and having a face inclined inwardly for guiding the edge of the tire inward.

965,681. Wheel. Samuel Bagnell, Han- kinson, Miss. Filed Dec. 4, 1909. Serial No. 531,324.

1. The combination with a drive wheel,

**The Bush Radiator**  
THE BUSH MANUFACTURING CO.  
HARTFORD, CONN.

### VEST POCKET AUTOMOBILE EXPENSE AND RECORD BOOK

FOR OWNERS, TOURISTS  
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of a disk having a central laterally extending hub for receiving the hub of the drive wheel, and provided with means for detachably engaging the spokes, a plurality of segmental blocks secured to the face of the disk adjacent to the periphery, the adjacent edges of the blocks being spaced apart to form radial guideways, a pawl or claw movable in each guideway, a ring secured to the blocks and covering the outer ends of the guideways, a second ring within the first ring and provided with a plurality of cam-shaped slots, pins on the pawls engaging the slots, a cover plate secured to the blocks, and provided with an arch-shaped rib, a pin secured to the last named ring and extending through the slot for operating said ring, and means for locking the ring with the outer ends of the pawls

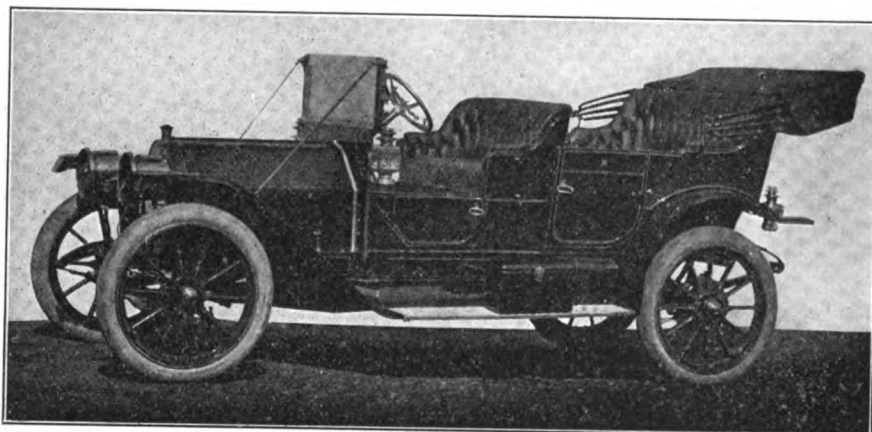
flush with the periphery of the disk or projected therebeyond, said means comprising a pin movable transversely of the cover plate, the ring having openings for engagement by the pin, and a spring normally holding the pin in engagement with an opening.

965,695. Tire Protector. William T. Dorgan, Saginaw, Mich., assignor to William J. Wickes and Arthur D. Eddy, Saginaw, Mich. Filed Dec. 20, 1907. Serial No. 407,364.

1. The combination with a tire, of a tire protector carried exteriorly of the tire and held firmly in place solely by the inflation of the tire, and flexible lipe secured to the margins of the protector and adapted to hug the outer face of the tire.

# KLINE CAR

## 1911 ANNOUNCEMENT



Model 6-50 6-Cylinder 5-Passenger Touring Car fully equipped with mohair top, side curtains and dust hood. Option of full doors or without doors in front Price \$2700

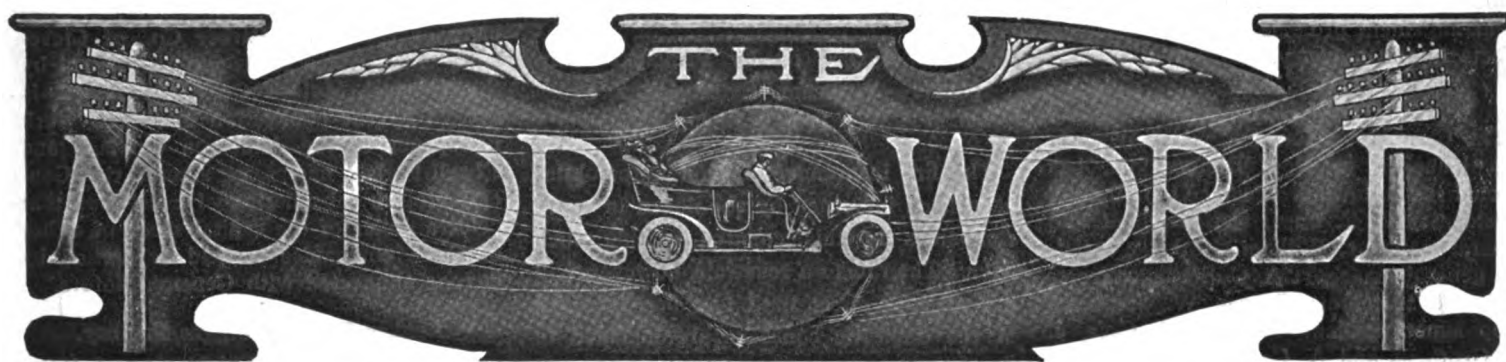
### FULL LINE FOR THE AGENTS

6-60 seven passenger Touring Car, including mohair top, side curtains, dust hood and demountable rims.....	\$3,250.00
6-50 five passenger Touring Car, including mohair top, side curtains and dust hood.....	2,700.00
6-50 four passenger Toy Tonneau, including mohair top, side curtains and dust hood.....	2,700.00
6-50 two passenger Meteor.....	2,650.00
4-40 five passenger Touring Car, including top, side curtains and dust hood.....	2,250.00
4-40 four passenger Toy Tonneau, including top, side curtains and dust hood.....	2,250.00
4-40 two passenger Runabout.....	2,200.00
4-30 five passenger Touring Car, including top, side curtains and dust hood.....	1,675.00
4-30 four passenger Toy Tonneau, including top, side curtains and dust hood.....	1,675.00
4-30 two passenger Runabout.....	1,625.00

Write for complete Specifications

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### BUICK'S BIG LOAN CAME HIGH

**Banks Will Obtain 24 Per Cent. for the Money Advanced—"Series B" Notes for Merchandise Creditors.**

It now is known why W. C. Durant, chairman of the General Motor Co.'s executive committee and the "wizard" of that \$60,000,000 venture, railed at the terms dictated by the New York bankers of whom he sought the loan of \$2,500,000 to relieve the stringency of the Buick Motor Co., the General Motors' chief constituent, due to the overproduction of Buick cars.

The terms laid down by the banks were the sort that makes men rail. Durant at first refused to accept them, but he needed the money and his acceptance was but a matter of time, and the "wizard" subscribed to them with the best grace possible. He, or rather the Buick company, will pay 24½ per cent. for the use of the money. The banks underwrote the issue of one-year notes at \$85, the notes to bear 6 per cent. interest. They are secured by the stock of what are considered the two strongest companies in the General Motors' organization.

It transpires that there are to be two separate and distinct issues of notes. That taken by the banks is denominated Series A, and the money raised on them is to be used for working capital. The other issue, Series B, will be offered to the merchandise creditors and will be guaranteed by the stock of a third company in the General Motors' establishment. At a meeting of Buick creditors on Friday last, 96 per cent. of them agreed to accept these Series B notes, but the refusal of the other 4 per cent. to do so at least temporarily defeated the plan. Another meeting, however, will be held today in the Union League Club house in Cleveland, when it is hoped to bring the objecting minority into line.

#### Two More Admitted to N. A. A. M.

Two new members were elected to the

ational Association of Automobile Manufacturers at its monthly meeting in New York City on the 7th inst., and modifications were made in the association's agreement with the Motor and Accessory Manufacturers in regard to space at the Chicago show next February, the changes giving the accessory association a concession as to the price of some of the show space for which it has contracted. The additions to the membership are the Kissel Motor Car Co., of Hartford, Wis., and the Pullman Motor Car Co., of York, Pa.

#### Garford in Line for Selden License.

As was expected, the Garford Co., of Elyria, O., one of the trade veterans which has entered on a policy of direct representation in the market for its four and six cylinder cars, is in line for a Selden license. Its application has been approved by the executive committee of the Association of Licensed Automobile Manufacturers, and formal issue of the license is expected to follow shortly.

#### Bankruptcy Proceedings Against Gaeth.

A receiver has been appointed for the Gaeth Automobile Co., of Cleveland, O., which makes the Gaeth car. Involuntary bankruptcy proceedings have been brought against the company by the Diamond Rubber Co., \$4,919.31; the Lake Shore Sawmill & Lumber Co., \$21, and C. S. Castle, \$384.30.

#### Ohio Farmers Take Kindly to Findlay.

Going even further than selling automobiles to farmers, the recently organized Findlay Motor Car Co., of Findlay, Ohio, is selling its stock to farmers. A syndicate of farmers residing near Jenera, Ohio, has agreed to take \$30,000 worth of the common stock and \$10,000 of the preferred.

#### Kissel-Kar Obtains a Selden License.

The Kissel-Kar is to be a licensed product in the future. Its makers, the Kissel Motor Car Co., of Hartford, Wis., have been granted a Selden license by the Association of Licensed Automobile Manufacturers.

### NO LENIENCY FOR "LAME DUCKS"

**Parts and Accessory Makers Preparing for the Future—Likely to Act Concertedly in Refusing Extensions.**

Cold comfort at the hands of the parts, materials and accessories men in the trade probably awaits those automobile manufacturing concerns that in the future may become mired in financial embarrassments. Instead of leniently assisting firms of this kind, either by accepting long term notes or by allowing them to give stock which virtually capitalizes their indebtedness, concerted action is being taken to unite the parts and accessories trade in killing off the "lame ducks."

It has become a conviction that it is better to "close them out," so to speak, and to settle claims for such percentage on the dollar as can be obtained at the time of the original failure, and thereby eliminate concerns that if permitted to continue would disturb the industry as a whole. Any other policy, it is contended, tends simply to prolong the situation and to invite subsequent difficulties. If a firm cannot arrange for adequate new capital independent of its assets and liabilities at the time of its failure, the parts creditors are urged to take no steps which involve its being retained in business.

In line with these views, there is to be established in the near future at the headquarters of the Motor and Accessory Manufacturers a department designed to allow the members to have a bureau where they can file claims arising from any failure and thus act in concert in connection with any final decision to be arrived at with reference to whether a firm is entitled to assistance or should be classed as not worthy of resuscitation. Through the medium of the bureau, all of the creditors involved in any particular failure may be brought close together for decisions that could not be reached if the creditors acted



wholly independently. The results of such an arrangement promise many far-reaching effects in the industry.

#### Case of New Bremen Organizes.

The Case Motor Car Co., which recently was launched in New Bremen, O., has elected the following officers: O. J. Boesel, president; W. E. Case, vice-president and general manager; William Grothaus, assistant general manager; A. C. Settlege, secretary and treasurer; George W. Stephens, shop superintendent, and W. E. Case, J. H. Grothaus and A. C. Settlege, executive committee. The company, which is capitalized at \$50,000, is to make commercial vehicles, along lines exemplified by two models which Case and Stephens have been demonstrating to New Bremen business men. The plant will be housed in the buildings of the Laufersieck & Grothaus Co., which reverts to the new company.

#### Morgan & Wright Open Branch in Denver.

Morgan & Wright, of Detroit, Mich., have opened a branch in Denver, Col., where a complete stock of Morgan & Wright tires and tubes will be carried. The new branch is located in the Majestic building, 217 Sixteenth street. James Maginnis, one of the best known salesmen on the company's staff, and Henry Althens, formerly in charge of the tire department of the Fry & McGill Motor Supply Co., Denver, have been put in charge.

#### Marko Storage Battery Exhausts Itself.

A petition in bankruptcy has been filed against the Marko Storage Battery Co., 250 West 54th street, New York City, manufacturer of storage batteries for automobiles and motor boats. The company has been in business about four years, and although it is capitalized at \$30,000, its probable assets are placed at \$1,500.

#### Pittsburg Electric Locates in New York.

The Pittsburg Motor Vehicle Co., manufacturing the Pittsburg line of commercial electric vehicles, has removed its factory and main office from Pittsburg, Pa., to New York City. The company now occupies a new and fully equipped plant at Concord avenue and East 143d street.

#### For the Handling of Fisks in Texas.

The Fisk Rubber Co. of Texas has been organized by local capital in San Antonio to handle Fisk tires in the Lone Star State. In addition to maintaining headquarters in San Antonio, distributing depots will be located in Dallas and Houston.

#### Pilot May Move to Des Moines.

Promises of financial subsidy have been secured by the Pilot Motor Car Co., of Richmond, Ind., for it to move to Des Moines, Ia. The proposition provides for additional capital amounting to \$150,000.

## FIRE RATES ON CARS ADVANCED

**Increases Agreed on by Principal Companies — Premium Rates Grow as Policy Face is Reduced.**

The fire insurance rates on automobiles have been increased by the dozen or more companies in this country writing such risks. The rates on renewals, however, will not go into effect until October 1st. All of the domestic concerns are included in the friendly agreement. The increase will apply only to the fire hazard, there being no change in liability rates, either for collision or general property damage.

Some time ago the local charge of 2½ per cent. was reduced to 2 per cent., partly owing to the continued complaints of motorists as to high cost, but more, it is said, because of the competition of the London Lloyds. The latter, of course, are not duly entered in New York state, but they manage to do plenty of business, nevertheless, for it is easy to telephone Jersey City. The companies authorized to do business in the Empire State have had a great deal of difficulty and loss in taking old models as risks. In attempting to replace parts, they found many manufacturing concerns had gone out of business. Unless certain parts were replaced the balance of the cars were good only for junk. As cars grew old, too, owners were inclined to lessen the amount of policies, taking them out for all sorts of odd sums.

Consequently a table of rates has been adopted by which only certain amounts can be taken out and the rate increases in proportion as the amount of policy requested drops. For instance, on cars originally costing \$500 to \$700, the rate is 2¾ per cent. for from \$700 down to \$500 indemnity. If only \$400 is wanted, the cost is 4 per cent. If \$1,750 is asked on cars originally costing \$1,500 to \$2,000, the rate is 2½ per cent., while a \$400 policy will cost 4½ per cent. On \$6,500 cars the rate for top amounts is 2¼ per cent., but \$2,000 policies cost 4 per cent. Then, in addition there is an extra charge of one-fourth of one per cent. on 1907 models that cost \$2,000 or less.

A deduction of one-fourth of one per cent. is allowed, however, on private pleasure cars insured with private garage warranty. Additional equipment is included in the original list price, but not extra bodies, which are subject to special rules. The rates apply only to new cars. On the second-hand cars of dealers there is an additional charge of one per cent.

#### Denies General Motors Control.

Indignant denials are made by President W. C. Anderson, of the Anderson Carriage

Co., of Detroit, Mich., that either that company or the Elwell-Parker Co., of Cleveland, Ohio, which it controls, is owned by the General Motors Co. The denial is evoked by the publication in a New York newspaper of the Anderson Carriage and Elwell-Parker names as among the General Motors subsidiaries. He declares that "Not a dollar of the capital stock of either of these companies is held or owned by anyone connected with General Motors."

#### Banker Takes a Bigger Factory.

The Banker Wind Shield Co., of Pittsburgh, Pa., which for many years has been located in the Banker building, at Baum and Beatty streets, East End, is moving to a plant formerly occupied by the Pittsburg Motor Vehicle Co., at Ellsworth avenue and Summerlea street. The change gives the company 10,000 square feet of factory floor space.

#### Marshalltown Again to Make Tops.

The Marshalltown Buggy Co., of Marshalltown, Ia., is to resume the manufacture of automobile tops, a line in which it has had considerable experience. Its automobile top business was taken over by the Gates-Osborne Mfg. Co., of Marshalltown, which now is being moved to Indianapolis, and the Buggy company will once more take up this line of production.

#### Velie Establishes a Branch in Boston.

The Velie Motor Vehicle Co., of Moline, Ill., is to establish a direct factory branch in Boston, Mass., for the handling of Velie cars. The branch will be located at 92 Massachusetts avenue and will be in charge of M. H. Lane, who has been assistant manager of the Velie Motor Car Co., of Chicago.

#### Bailey Becomes the Federal Truck.

The Bailey Motor Truck Co., of Detroit, Mich., has changed its firm name and in future will be known as the Federal Motor Truck Co. M. L. Pulcher, formerly secretary and purchasing agent of the Oakland Motor Car Co., retains his position as general manager of the concern.

#### G & J Changes Subsidiary's Name.

The G & J Tire Co., of Indianapolis, Ind., which for a long time has contained within itself a subsidiary company known as the Indianapolis Rubber Co., has changed the name of the latter to conform with its own. Court action has been taken changing the name to the G & J Tire Co.

#### Warren to Have a Parts Plant.

The Warren Iron & Specialty Mfg. Co. has been organized in Warren, Pa., with a capitalization of \$50,000, and is to make small parts for automobiles. The concern has purchased the plant of R. J. Schlosser, on Pennsylvania avenue, east.

**LICENSEES DRAW FOR SHOW SPACE**

**Twenty-two Obtain Position on the Main Floor in New York—Buick Affairs Cause Wholesome Discussion.**

Although drawing for space at the forthcoming national show in Madison Square Garden, New York, January 7-14, was the chief business transacted at the meeting of the board of managers of the Association of Licensed Automobile Manufacturers on Thursday last, 8th inst., the discussion of trade conditions, particularly as they are affected by the turn in the Buick-General Motors affairs, was of even keener interest to those in attendance.

The discussion all was of a reassuring nature. As a matter of fact, the wise heads of the association saw the shadows gathering months ago and prepared to offset their approach. There then was general counsel to cease expansion, to contract outputs and generally to practice conservatism, and if any member suffers it will be largely because of failure to heed the advice. At last Thursday's meeting the position in which the Buick company finds itself was pointed to as emphasizing the need for conservatism, and it is known that even the most "chronic insurgent" in the ranks was for once in hearty accord with his fellows. There were those who stated that despite the fact that they have in hand more orders than actually were filled during the season just closing, they will adhere to their previous assurances and hold fast to their original estimates of production. As one member expressed it, the fact that Buick had been able to obtain financial aid was in the nature of a relief to the entire trade, as its failure to do so would have made the matter one of real concern to the industry.

It also came out at the meeting that two Western members are far in arrears in their royalty payments, and that because of their delinquencies they are to be cited to show cause why their Selden licenses should not be canceled.

In the drawing for exhibition space, only Part I of the show—as the first week which will be devoted solely to pleasure cars will be termed—was considered. The members drew in the order of their payment of royalty, Buick, as the largest payer, having first choice. The others drew in the following order for space on the main floor: Overland, E-M-F, Cadillac, Packard, Maxwell, Chalmers, Reo and Pierce-Arrow, Stearns, Thomas, Olds, Franklin, Dayton, Oakland, Lozier, Elmore, Winton, Locomobile, Hudson, Mitchell, Stevens-Duryea and Peerless.

The others who must be content with space in the Exhibition Hall and on the balconies include the Amplex, Moon, Mercer, Corbin, Bartholomew, Marmon, Knox,

American, Matheson, National, Selden, Waltham (White), Buckeye, Moline, Premier, Autocar, Columbia, Alco, Studebaker, Inter-State, Ohio, Palmer-Singer, Kissel, Hol-Tan, Chadwick, Speedwell, Regal, McIntyre, Marquette, Acme, Pierce-Racine, Flandrau, Hupmobile, Midland, Brewster, Courier, Simplex, Atlas, Dorris and Cartercar.

At the meeting Alfred Reeves, general manager of the association, was added to the show committee, which now consists of Col. George Pope, chairman; Merle L. Downs, secretary; Charles Clifton and Alfred Reeves.

Charles Clifton, of the Pierce-Arrow Motor Car Co., head of the association, presided at the meeting. The others in attendance were: James Joyce, American Locomotive Co.; G. H. Strout, Apperson Bros. Automobile Co.; J. S. Clarke and D. S. Ludlum, Autocar Co.; O. Y. Bartholomew and R. A. Whitney, The Bartholomew Co.; J. W. Lambert, Buckeye Mfg. Co.; W. C. Leland, Cadillac Motor Car Co.; H. W. Nuckols, Columbia Motor Car Co.; H. S. Hart, Corbin Motor Vehicle Corp.; W. R. Innis, E-M-F Co.; G. H. Stilwell, H. H. Franklin Mfg. Co.; Elwood Haynes, Haynes Automobile Co.; Howard E. Coffin, Hudson Motor Car Co.; I. H. Page, Stevens-Duryea Co.; G. A. Matthews, Jackson Automobile Co.; A. N. Mayo, Knox Automobile Co.; S. T. Davis, Jr., Locomobile Co. of America; H. A. Lozier, Lozier Motor Co.; F. F. Matheson, Matheson Motor Car Co.; Benjamin Briscoe, Maxwell-Briscoe Motor Co.; W. T. White, Mercer Automobile Co.; W. E. Metzger, Metzger Motor Car Co.; J. W. Gilson, Mitchell-Lewis Motor Co.; W. H. Vandervoort, Moline Automobile Co.; M. J. Budlong, Packard Motor Car Co.; L. H. Kittredge, Peerless Motor Car Co.; George Pope, Pope Manufacturing Co.; H. O. Smith, Premier Motor Manufacturing Co.; T. C. O'Connor, Pullman Motor Car Co.; R. E. Ingersoll, Reo Motor Car Co.; George J. Dunham, Royal Tourist Car Co.; G. E. Mitchell, Alden-Sampson Manufacturing Co.; R. H. Salmons, Selden Motor Vehicle Co.; F. B. Stearns, F. B. Stearns Co.; W. R. Innis, Studebaker Automobile Co.; Windsor T. White, Waltham (White) Manufacturing Co.; John N. Willys, Willys-Overland Co.; Thomas Henderson, Winton Motor Carriage Co., and Alfred Reeves, general manager.

**Fisk to Open Five More Branches.**

The Fisk Rubber Co. is about to extend its branch system to five additional cities, viz., Providence, R. I.; Rochester, N. Y.; Baltimore, Md.; Omaha, Neb., and Oakland, Cal. In all save Baltimore and Omaha, the branches will be opened on the 1st prox.; in those two cities the openings await the completion of the new buildings in which they will be housed and which are in course of erection.

**TO CALL IMPORTERS TO ACCOUNT**

**Suits in Preparation Against All not Operating Under Selden License—Those Whom the Litigation will Affect.**

After a long period of seeming immunity, the importers of foreign cars who are not operating under Selden license, are to be disturbed by damage suits and applications for injunction. At one time the greater proportion of the importers were licensees under the patent, but subsequently they permitted their license arrangement to lapse, until at present only three are in the Association of Licensed Automobile Manufacturers' fold, these being the Hol-Tan Co., importer of the Lancia; Brewster & Co., handling the Delaunay-Belleville, and the Flandrau Motor Car Co., having the sale of the Brasier. All the others of the importers' colony have been operating without much thought or worry about being licensed, but the Selden attorneys now are on their trail with suits similar to that successfully brought against Panhard & Levassor along with the suit against the Ford Motor Co.

The litigation program that has been decided upon includes the bringing of suits against the Fiat, Benz, Renault and other importers who either have neglected or refused to take advantage of the license terms that were possible for them following the sustaining of the Selden patent in the United States Circuit Court for the Southern District of New York, by Judge Hough. The filing of the suits is timed to bring the cases for hearing in October if possible, when in lieu of actual injunctions the importers may be compelled to file ample bonds pending the result of the appeal in the Ford case, which bids fair to be decided before the first of the coming year.

**Studebaker to Move Further Uptown.**

The Studebaker Bros. Co. of New York, which handles Studebaker, E-M-F and Flanders cars in New York City in connection with other Studebaker vehicle products, is to move from the large building at Broadway and 48th street, which it has occupied for nine years, to a location above Columbus Circle. Its present building has been leased to one tenant for a long term of years, and three stories are to be added to the present structure, making thirteen stories in all.

**Sterling Greatly Enlarges Its Scope.**

The Sterling Mfg. Co., 611-619 West 55th street, New York, of which A. Winick is president and J. F. Mulqueen manager, has begun the manufacture of steel and aluminum bodies, tanks, hoods, dustpans, tops, etc. Formerly it was engaged chiefly in repair work.

**The Week's Incorporations.**

Los Angeles, Cal.—Hollywood garage, under California laws, with \$14,000 capital; to operate a garage.

St. Louis, Mo.—Rowmobile Mfg. Co., under Missouri laws, with \$200,000 capital. Corporators—Matthew McGowan, Frederick Boettler, Frederick P. Portman.

Chicago, Ill.—Marion Motor Car Co., under Illinois laws, with \$10,000 capital; to deal in automobiles. Corporators—Robert E. Maypole, Alvar A. Landry, George R. Carpenter.

Detroit, Mich.—Electric Truck Co., under Michigan laws; to deal in electric vehicles and operate a garage. Corporators—Alexander Dow, S. M. Sheridan, S. C. Mulford, J. W. Brennan.

St. Louis, Mo.—Missouri Taxicab Co., under Missouri laws, with \$25,000 capital; to operate taxicabs and a garage. Corporators—Herman Rindskopf, Clara Isaacs, Addie Rindskopf.

Brooklyn, N. Y.—Curry Auto Co., under New York laws, with \$10,000 capital; to deal in supplies and accessories. Corporators—Moses Cohen, Isidor B. Ehrmann, Charles A. Curry.

Akron, O.—American Tire & Rubber Co., under Ohio laws, with \$200,000 capital; to manufacture all classes of rubber goods. Corporators—F. L. Kryder, Harvey Musser, J. R. Huffman.

Rochester, N. Y.—Auto Commercial Co., under New York laws, with \$10,000 capital; to deal in automobiles. Corporators—George F. Shelter, Elliott E. Diamond, Juliet M. Diamond.

Chicago, Ill.—Woods Auto Service Co., under Illinois laws, with \$20,000 capital; to conduct an automobile delivery service. Corporators—Henry W. Wales, Matt B. Pittman, Sidney S. Gorham.

Minneapolis, Minn.—Automobile Owners' Association, under Minnesota laws, with \$50,000 capital; to promote the interests of motorists. Corporators—H. M. McAllister, T. G. Newgood, A. C. Raymond.

Buffalo, N. Y.—Peerless Windshield Co., under New York laws, with \$10,000 capital; to manufacture windshields and accessories. Corporators—Timothy Gingras, William H. Gingras, M. H. Gingras, all of Buffalo.

Cleveland, O.—Ohio Regal Auto Co., under Ohio laws, with \$100,000 capital; to do general automobile business. Corporators—F. W. Haines, J. E. Lambert, Burt Lambert, C. R. Lambert, F. L. Pierce.

Detroit, Mich.—Monroe Body Co., under Michigan laws, with \$500,000 capital; to manufacture automobile bodies. Corporators—R. F. Monroe, F. H. Yeomans, J. C. Rittenhouse, J. T. Lombard and others.

Trenton, N. J.—Simms Magneto Co., a New York corporation, with \$1,000,000 capital, admitted to do business in New Jersey. Corporators—Fred R. Simms, Alfred

Nathan, Mortimer Stifel, all of New York City.

Los Angeles, Cal.—Whittier Garage Co., under California laws, with \$10,000 capital, \$500 of which has been paid in. Corporators—Charles Saunders, F. A. Frantz, Gordon Saunders, J. A. Hiller, J. F. McDill.

New York City, N. Y.—Merit Motor Car Mfg. Co., under New York laws, with \$50,000 capital; to manufacture motors, engines, automobiles, etc. Corporators—E. H. Knight, J. H. Riviere, E. C. Billings.

St. Louis, Mo.—Lindell Motor & Auto Parts Mfg. Co., under Missouri laws, with \$6,000 capital; to deal in automobiles and motors. Corporators—Edward B. Campbell, Alfred A. Wagner, George S. Franks.

Trenton, N. J.—King Auto Co., under New Jersey laws, with \$3,000 capital; to manufacture and deal in motor vehicles. Corporators—Hugh Grant King, Florence A. King, William Holt Appgar, Rettie H. Appgar.

Richmond, Va.—Standard Auto Equipment Co., under Virginia laws, with \$10,000 maximum, \$3,000 minimum capital; to do general automobile and carriage business. Corporators—B. C. Pattee, George A. Perry, C. R. Moore.

Detroit, Mich.—Ohio Regal Auto Co., under Ohio laws, with \$100,000 capital; to establish branch of Cleveland main offices in Michigan. Corporators—F. W. Haines, J. E. Lambert, Burt Lambert, C. R. Lambert, F. L. Pierce.

New York City, N. Y.—Shaffer Motor Co., under New York laws, with \$100,000 capital; to manufacture and deal in automobile motors, engines, machinery, etc. Corporators—C. W. Shaffer, Earle W. Webb, John L. Lyttle.

Cleveland, O.—Standard Top & Equipment Co., under Ohio laws, with \$10,000 capital; to manufacture automobile and buggy tops. Corporators—Thomas Swan, Joseph A. Craig, James F. Martens, Joseph Buling, Gertrude M. Swan.

Newark, N. J.—Auto Delivery Truck Mfg. Co., under New Jersey laws, with \$50,000 capital; to manufacture automobile machinery and conduct a general repair shop. Corporators—N. Davidson, I. Rosenbaum, A. Tapper, P. E. Drake.

Detroit, Mich.—Universal Motor Truck Co., under Michigan laws, with \$350,000 capital, of which \$90,000 has been paid in; to manufacture commercial motor vehicles. Corporators—Judge Rohnert, August P. Kling, Louis Kamper, A. E. Barker and others.

New York City, N. Y.—Electric Vehicle Association of America, under New York laws, without capital; to promote the adoption and use of electric vehicles for business and pleasure purposes, etc. Corporators—Weldon W. Freeman, Charles G. M. Thomas, Philip D. Wagoner.

**Changes Among Prominent Tradesmen.**

A. B. Cumner has been made manager of the Autocar service building which the Autocar company, of Ardmore, Pa., has completed in Boston, Mass., and which is to be opened on the first of October. The building, which is located at Beacon street and Commonwealth avenue, includes garage and mechanical departments in addition to salesrooms. Cumner but recently returned from the Pacific Coast where he has been looking after Autocar interests.

L. B. Sanders, who has been in charge of the Chicago sales of the Brush Runabout Co., Detroit, Mich., has been appointed district manager of the Brush interests of the United States Motor Co. in the Central Western states. He will be succeeded as manager of the Chicago branch of the Brush by P. P. Pollock, formerly a Southern traveling representative of the company.

Lawrence Moore, formerly connected with the Gear Grinding Machine Co., has been made sales manager of the Russell Motor Axle Co., of North Detroit, Mich. The sales of the company's automobile axles previously were handled by Roger B. McMullen, of Chicago, acting as general sales agent, but all sales now will be handled by its own sales department.

George Williams has resigned the superintendency of the Indianapolis factory of the Willys-Overland Co. to become general superintendent of the Pierce Motor Co., Racine, Wis. His departure was made the occasion for a farewell feast and gift presentation given by the office force and foremen of the motor department at Indianapolis.

Gaylord Warner has been appointed manager of the Chicago branch of the E. R. Thomas Motor Co., Buffalo, N. Y. He succeeds C. T. Paxson, who has resumed charge of the company's retail branch in Buffalo.

A. D. Corwin, of Brooklyn, has been installed as manager of the Buick branch agency in that borough. He for some time was agent for that car at Riverhead, Long Island. He succeeded Fred F. Colver.

J. E. Savelle has resigned as manager of the New England Motor Vehicle Co., of Boston, Mass., handling Rainier and Parry cars. He will undertake the construction and equipping of a new garage project.

E. P. Nussbaum has resigned as general representative of the Jones Speedometer. His plans for the future are not yet announced.

**Increases of Capitalization.**

Cincinnati, O.—Cincinnati Taxicab Co. increases capital from \$20,000 to \$40,000.

Celina, O.—Celina Auto Co. increases capital from \$10,000 to \$20,000.

Lansing, Mich.—Auto Body Co. increases capital from \$150,000 to \$250,000.

## IN THE RETAIL WORLD.

W. T. Reinhart has engaged in the garage business in Ogden, Ia.

A new garage has been opened in Kearney, Neb., by J. Sitz & Son.

O. L. Ramstack has opened a garage and repair shop in West Bend, Wis.

Kingman, Kansas, soon is to have a garage. W. V. Severs is constructing it.

Thompson & Slattery have sold their automobile business in Spirit Lake, Ia., to Bergman & Salzer.

A new garage is to be erected in Pleasantville, N. Y., at a cost of \$7,000. Louis Zetmire is the owner.

Oelwein, Iowa, soon is to have its first public garage. Ray Downing and W. B. Collinson are building it.

T. A. Mitchell, of Council Bluffs, Ia., has purchased an interest in the Atlantic Automobile Co., which conducts a garage in that city.

J. W. Robisch is erecting a large garage on Main street, Jefferson, Wis. Besides doing a general repair work he expects to deal in second-hand cars.

The Interstate Motor Sales Co., of Indianapolis, Ind., has taken possession of its new quarters at 427 North Meridian street. It has added Wintons to its line of cars.

The firm of Fletcher & Hinke, automobile dealers in Hamburg, Ia., has been dissolved by mutual consent. Fletcher will continue the business under his own name.

E. R. Jackson and William E. Walter have formed a partnership in Philadelphia under the style the Jackson-Walter Co. They will represent the Owen car in that city.

Nicholas Marinaro, of Morristown, N. J., has purchased the triangular piece of property situated between Speedwell and Sussex avenues. He will erect a fireproof garage thereon.

The Gotham Car Co. has been given the New York City agency for the S. V. G. cars, made by the Acme Motor Car Co., of Reading, Pa. Salesrooms have been opened at 1853 Broadway.

The Cartercar Co., of Pontiac, Mich., has established a branch in New York City, at Broadway and 77th street. W. S. Williams, eastern distributor for the company, has been placed in charge.

Under the style Biays & Cochrane, two Marylanders will open a garage and salesroom in Cumberland, Md. The three story structure which they are erecting on Union street will cover 40 x 126 feet.

The Haas Motor Co. is the name of a new company which has been organized in Atlanta, Ga., with Herman J. Haas as manager. Bergdoll, Winton, and Rauch & Lang electrics will be carried.

George and Elmer Roberts will enter the garage business in Shenandoah, Pa. They

have purchased the Shuggars estate property on North Jardin street on which they are building a brick garage.

Taking part of the store of the Pagel-Allen Co., at 1407 Hennepin avenue, Minneapolis, Minn., the Racine Auto Tire Co. has established a salesroom in the Flour City. Frank Bailey is in charge of it.

Another big garage is in course of construction on Olive street, near 11th street, Los Angeles, Cal. S. Y. Turner and P. M. Sprowls are building the structure, which will be 50 x 155 feet and will cost \$42,000.

C. G. Hubbard, of Spokane, Wash., has purchased a large plot on Fourth avenue, between Post and Lincoln streets, on which he will build a garage. The structure is to be three stories high, of brick and concrete.

Chadwick and Hudson cars will be featured by the A. S. John Automobile Co., which just has established itself at 236-238 Avenue C, San Antonio, Texas. A. S. John is president of the concern, and H. G. Hayes treasurer and secretary.

The Texas Tallyho Co., of San Antonio, has been formed by C. B. Craft, who is to be its president-manager, to do a general automobile livery business. The garage is located at the corner of Evergreen street and San Pedro avenue.

W. E. Chapman & Son have purchased the good will and stock of the Neola Auto Co., Neola, Ia., and will continue the business under their firm name. Previously T. A. Mitchell held the controlling interest in the Neola company.

E. R. Wilson, formerly manager of the Paxton-Mitchell Co., Omaha, Neb., has formed a company under the style the E. R. Wilson company with headquarters at 2010 Harney street. The new company will handle Lexington cars exclusively.

The Howard Automobile Co., of San Francisco, Cal., has taken over the business of the Northwest Buick Co., distributors of the Buick car in Oregon, with headquarters in Portland. Mel Johnson of the Howard company will be the manager.

Howard B. Smith, president of the Empire Sales Co., Buffalo, N. Y., has been elected president of the Overland-Buffalo Co., a new concern just organized. As the name indicates, Overland cars will be featured at the salesrooms, which are at 918-920 Main street.

M. C. McKenzie has purchased a half interest in the Piedmont Motor Car Co., located at 105 North Pryor street, Atlanta, Ga. The company, which is enlarging its present quarters, handles the Stoddard-Dayton, Marmon and Peerless gasoline cars and the Baker electrics.

Charles S. Johnson, formerly sales manager for the Bates-Odenbrett Automobile Co., of Milwaukee, Wis., has taken over the agency for Interstate cars. He has

been given the whole state of Wisconsin and the northern part of Michigan in which to exercise his selling abilities.

The Edgewood Garage, located at 7 Edgewood street, is the latest addition to Boston's colony of garages. J. Hiram Smith, vice-president of the Reliance Speedometer Co., is the proprietor. The structure is two stories high, of brick, and contains about 27,000 feet of floor space.

The new garage just completed at 465 Woodward avenue, Detroit, Mich., will be occupied by three automobile concerns. Thomas H. Harris will feature the Krit, Kenneth Montgomery the American line, while the remainder of the building is to be given over to Abbott-Detroit cars.

McFarland "Sixes" will be represented in the south by the McFarland Southern Co., which just has been formed by M. L. Fuller former president of the Corker Motor Car Co., distributor of the Haynes cars. Fuller's territory includes Georgia, Tennessee, Alabama, Mississippi, Florida and South Carolina.

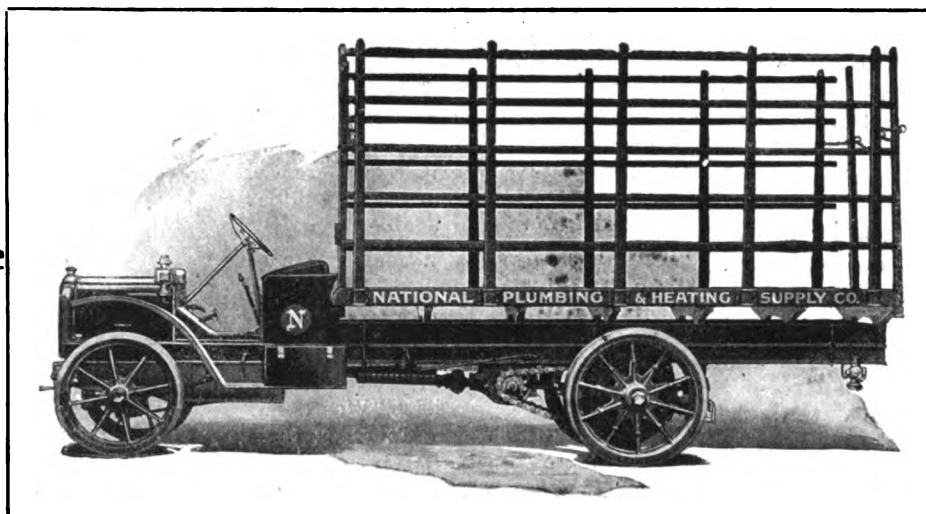
Combining under the same roof the sales and mechanical departments which formerly were separated, the Fanning Motor Co., of Philadelphia, Pa., has opened its new headquarters in the Scottish Rite building, corner Broad and Race streets. As heretofore, Thomas cars will be handled exclusively.

The Alco Motor Sales Co., 832-36 Hennepin avenue, Minneapolis, Minn., has absorbed the Victoria Motor Car Co., taking over the agencies for the various lines of cars which the latter represented. The principal stockholders of the Victoria company have taken stock in the Alco concern, of which M. R. Nyman is president.

Under the style the Brush-Toledo Co., a new concern has established itself in Toledo, Ohio. J. B. Dossou, who is the manager of the concern, for several months has been the agent for Brush cars in Toledo, but now has been appointed distributor for Northwestern Ohio, organizing the company to handle the business.

Finding their present quarters too crowded to properly care for their increasing business, Smith Bros., owners of the Park Garage in Manchester, Conn., are preparing to move into a more commodious building of their own. The new structure is located on Bissell street, near Main. It is 63 x 105 feet, two stories high, of brick and concrete.

R. W. Anslem, previously identified with the General Motor Car Co. of St. Louis, has organized the Grand Motor Car Co. in that city and has acquired the Regal agency, which formerly was held by the General company. Pending the completion of a new building, 55 x 180 feet, at Grand avenue and Russell street, the Grand Motor Car Co. will be located at 743 Bayard avenue.



## The White Trucks at Chickamagua

**T**HE only problem of the mechanically-propelled truck is to demonstrate its reliability. Every cartage department knows the economical advantage of the gasoline motor vehicles, and the only reason they are not installed generally is because the proprietors are waiting the advent of a reliable motor truck.

A remarkable demonstration of this reliability was made by the White Motor Truck at Chickamagua. For more than thirty days the White ton and a half truck did the work of from three to six mule teams, of four mules each. It made daily trips from Chickamagua to Chattanooga, a total distance of twenty-two miles, often making three or four trips a day—in every way possible it satisfied the most exacting army requirements. This work was cross-country and much of the time under unfavorable road conditions.

**What It Means** The object lesson from the Chickamagua maneuvers is simply—what White Trucks did there they will do for you. The White Trucks at Chickamagua were there for a test, operated by the United States Regular Army officers, and the test was thorough, not only for reliability but flexibility and adaptability to every situation.

That the White Truck emphatically responded to every test suggested is the best evidence that it is the motor truck first to demonstrate its positive reliability and economy under the severest requirements.

Details of the loads hauled, the expense of up-keep and maintenance at Chickamagua will be gladly furnished upon request.

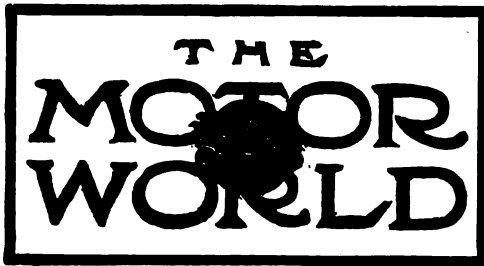
Catalogues and other literature also willingly supplied.

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#### The Lamb that Refused to Feed.

Even Napoleon over-reached himself. Since his day many emulators have sought to conquer the world and failed. The man who likens it to a lamb and aims to have it feed out of his hand is more than likely to discover that the world is rather an old lamb and quite a large one; in fact, he is apt to learn that it no longer is a lamb but a full grown ram. Rams usually have horns, too, and are not too tractable, and horns usually are useful for butting purposes.

It is not strange that the automobile industry should have developed a near-Napoleon, nor is it strange that he should have dreamed and even boasted that it must feed, lamblike, out of his hand. That his dream should be shattered—that he should awaken to discover that the lamb is a ram, strong and full grown, and to feel the force of its horns, scarcely should excite much surprise. The process of world-com-

pelling is an expensive one and one fraught with peril, and when it concerns a flourishing industrial movement and entails the enmeshing of the industry in ticker tape, which is foreign to its nature, the expense and peril does not fall alone on those intent on bringing the world to their feet.

Ever since the automobile industry developed what his biographer styled a "wizard" with Napoleonic tendencies and since the world-compelling plans and policies of the "wizard" unfolded and shaped themselves into the General Motors Co., the peril to the trade has been plain to all who wished to see and has been growing increasingly acute. The plans and policies were dreamlike—they constituted a beautiful bubble and the blowing of it, accompanied by admirable audacity and the music of the stock ticker, made the world wonder and caused fools to rush in where angels feared to tread.

The Motor World was among those quick to foresee the result. As the Napoleonic movement to conquer the world progressed, the Motor World had frequent occasion to turn the light on the would-be conqueror and his movements. There were not a few who viewed the illumination in the light of opposition. But it was nothing of the sort. It seems to us a duty of trade journals to point out perils and pitfalls, and we performed that duty. In the light of what has happened to the "wizard" and his plans, it is timely to remark the fact.

The attempt to over-capitalize prosperity and to make merchandizing and stock jobbing mix has had its natural result. The clearing of the situation which now will follow will prove of benefit to and enhance the stability of every department of the industry.

#### Signals that Make for Safety.

Despite laws passed and efforts to pass laws prohibiting the employment of so-called discordant or unusual alarm signals on motor cars and limiting motorists to the use of the time-honored bulb horn, it is becoming increasingly evident that the horn is inadequate for all purposes. It has been abundantly demonstrated that it is a short range signal, and that however sufficient it may be to warn pedestrians and horse-men, its sound does not carry far enough or is not penetrating enough to warn the drivers of other motor cars in whose ears there is the hum of moving machinery.

As, so far as the relation of motorists one to the other is concerned, the chief element of danger lies in approaching crossings and turns, this safety rests in signals that will notify each of them sufficiently far in advance to permit them to guard against the broadside and head-on collisions of which the wonder is there are not more. The number of narrow escapes from accidents of the sort are unpleasantly numerous, as nearly every motorist is well aware.

The horn may serve or may be made to serve in cities, but on the open road its service is limited and is governed largely by circumstances. Certainly it cannot be relied on to meet all conditions. The fact that not a few motorists who are mindful of public sentiment have equipped their cars with both a horn and a more powerful alarm, one for city use, the other for service in the country, is unmistakable evidence of their experiences and opinions; the recent production of a device in which a horn and a more penetrating alarm are contained in one instrument and which permits either to be sounded at will, constitutes evidence of the same nature.

There is real need of long range signals, and though their noises may jar harshly or strangely on the public ear, it is chiefly because that ear is unaccustomed to them. They are a contribution to public safety. The complaints regarding them and the objection to their use arises chiefly from their abuse—to the practice of unthinking or inconsiderate people who sound them too often or too long.

In an editorial made up of twelve stanzas and which, significantly or otherwise, appears directly opposite a heavily-soldered article entitled "Jarred Editorial Brains," our esteemed contemporary, The Automobile, takes the A. A. A. to task for requiring that short distance records, to obtain official acceptance, shall be timed by automatic apparatus and for not requiring that all speed events of whatever distance shall be similarly timed. The Automobile works itself into a cold, clammy perspiration in discussing the subject. It finds in the A. A. A. attitude a likeness to a judge assisting a murderer to commit crime, a likeness to a bull used in a slaughter house to lure other cattle to slaughter, a likeness of the public being treated as cattle. Indeed, our contemporary's similes are grewsome

enough to make flesh creep and they absolutely convict the A. A. A. contest board of something or other. When that body declares there would be little racing if it required automatic timing for all races, wherever held, it merely is talking common sense and proving that it is promoting sport on a reasonable basis. But what's a little thing like that compared with that judge who promoted murder or that nasty bull that leads other cattle to slaughter,

Despite the recent tragic accident on Pelham Parkway, New York, in which one occupant of a buggy was killed and two others injured when it was "sideswiped" and overturned by an automobile, the police remain strangely indifferent to the failure of drivers of horse-drawn vehicles to display lights after nightfall, which failure is a direct contribution to such accidents, if not to the one in question. Within a distance of less than two miles on Pelham Parkway there were counted on Sunday last 20 buggies, seven of which displayed no lights whatever and on five of the others the lamps were so placed that the red bullseye could not be seen from the rear. Two policemen whose attention was called to the state of affairs remained blind and dumb. The laxity in the enforcement of such life-saving laws is the underlying cause of most accidents. If the police authorities were as active in applying the obvious preventives, there would be fewer "sensations" and less work for them to do. The arrest of a few of the horsemen who do not display or who improperly display the lights required by law would serve those purposes and save them from their own folly.

The wonder that there are not more head-on collisions between automobiles is exceeded only by the number of drivers who apparently give no thought to the sounding of an alarm when approaching even the blindest curve. During a recent tour of nearly 1,000 miles there were met but three motorists who signaled their presence near such danger points. On two occasions during the same outing the narrowest sort of escapes were had at such places, serious accident being averted only because one car was run into the ditch and at that touched the heedless on-comer. Possibly some day it may dawn on more motorists that "careful and prudent" driving entails more than regard for the speed limit.

## COMING EVENTS

September 15, Oklahoma City, Okla.—Oklahoma Automobile Association's hill climb.

September 16, Algonquin, Ill.—Chicago Motor Club's fifth annual hill climb.

September 17, Syracuse, N. Y.—Automobile Club of Syracuse-Syracuse Automobile Dealers' Association joint race meet at fair grounds track.

September 17, Newark, N. J.—New Jersey Automobile and Motor Club's sociability run.

September 17, Toledo, O.—Toledo Fair Grounds Association's race meet.

September 17-18, Philadelphia, Pa.—Automobile Club of Philadelphia sociability run.

September 18, Los Angeles, Cal.—Annual road race up Mount Baldy.

September 18-20, Elmira, N. Y.—Automobile races at Tompkins county fair.

September 20-22, Louisville, Ky.—Louisville Automobile Club's annual reliability and endurance run.

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 26-29, St. Louis, Mo.—Third annual national good roads convention.

September 30-October 3, Minneapolis, Minn.—Automobile Club of Minneapolis third endurance run.

October 1, Springfield, Ill.—Automobile races at Illinois State Fair.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Peoria, Ill.—Automobile races at state fair.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, Santa Anna, Cal.—Automobile meet.

October 8, Spokane, Wash.—Automobile meet at Interstate Fair.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-12, Amarillo, Tex.—Panhandle Fair Association's annual race meet.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road

race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Chicago, Ill.—Chicago Motor Club's reliability contest.

October 15-16, Philadelphia, Pa.—Automobile Club of Philadelphia fall tour, Atlantic City and return.

October 21-22, Boston, Mass.—Boston "American" commercial vehicle contest.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

## "NAPOLEONIZING" THE INDUSTRY

Remarkable Efforts and Effects Employed  
in a Remarkable Campaign—Audacity  
of the World-Compeller.

To say that every thinking person identified with the automobile industry is breathing more freely now that the banking interests have stepped in and placed a checkrein on W. C. Durant, the prime mover and directing genius of the General Motors Co., is but to describe mildly the feeling that exists.

The feeling is not one of satisfaction that discomfiture or embarrassment has overtaken Durant and his \$60,000,000 venture, but rather that an element of real peril to the entire industry has been circumvented and chastened. There has been no real antagonism to Durant or his companies, but the methods they have pursued were such that should disaster befall them, practically the whole structure of the business must be seriously affected. The ultimate effects of these methods long have been plain to all who cared to see or who tried to see, and those who placed themselves in this category long since discounted the influence they could not fail to exert, although necessarily they have felt the influence in greater or less degree.

Having a bit and checkrein placed between his teeth must saw sorely on the mouth of Durant himself. In characteristic fashion, he fought hard to prevent it. According to report, when he applied to the Detroit banks for the big loan which had become so necessary to his welfare he refused their demand for the collateral which they specified, and practically bid them "go hang." He hurried to New York and here practically the same securities were demanded by the banks, but again Durant put on his bold front and refused to accede to the terms. But the situation was such that the bold front did not prove of avail. Circumstances had altered cases and he was forced to return and surrender. He now is in the toils of Wall Street, so to speak, and must do its bidding.

Durant himself probably is the most interesting and in some respects the shrewdest person the automobile industry has developed. Short and slight of stature, dark-skinned and of not unpleasant features, his appearance by no means betokens the power that is within him and which he wielded to the point of over-reaching himself. The very audacity of the man has been one of his most compelling forces. The manner in which he, a seeker for favor, bearded the bankers of two cities in their dens and attempted almost to dictate the terms of the favor, is a fair illustration of his audacity. Rarely has he been in wholehearted agreement with his

fellow-members of the Association of Licensed Automobile Manufacturers, and another typical instance of his "front," which also reflected the world-conquering ideas which he harbored, cropped out at a gathering of A. L. A. M. members.

"I'll be in position to tell you how many cars you can build each year and name the prices at which you shall sell them," is the prophetic and taunting assertion with which Durant is credited as having made on that occasion—a prophecy which, however, sadly has miscarried.

That he really believed what he said is not susceptible to much doubt, as it is only four or five months since he advertised that in 1911 the General Motors Co. would produce 101,000 cars and in the following year, 200,000 of them.

Durant believed in publicity but not in advertising; that is, the sort of advertising that must be paid for. When he did advertise it usually was to gain the favor of someone or to serve purposes of his own. It was his habit to declare that there was no necessity for buying advertising space.

"Do something spectacular and, damn 'em, the papers will have to notice you," is the utterance to which he more than once gave voice, using the mildest extract from a full and forcible vocabulary on which he is prone to draw freely.

He himself frequently "did the spectacular," and the racing campaign which he instituted was but another means of doing the same thing and getting advertising without paying for it. The Buick racing team toured the country. Its managers promoted race meets in scores of small cities and the Buick team came along with its traveling machine shop and highly refined "stock" cars, and rarely failed to capture everything at these made-to-order meetings. The Buick car thus obtained reams of free advertising and the public was none the wiser.

Durant himself is a product of the carriage industry, in which by more or less original methods he made millions. In Flint, Mich., he turned out light buggies in enormous quantities and sold them in equally large volumes at \$1 profit on each vehicle to jobbers, mail order houses and others who posed as buggy manufacturers. With the profits, and with larger ends in view, he came to New York and in the Wall Street district set up an "investment company" as an annex to his carriage interests. There Durant spent much of his time, reaping, it is said, a large crop of experience in the rise and fall of stocks, the methods of attempting "corners" and the ways of Wall Street generally. Meanwhile, however, he had become interested in automobiles and, assisted by a more or less mysterious motor which developed power out of all proportions to its dimensions, the Buick car attained prominence, and by purchase of the Pope-Robinson li-

cense he gained entry to the Association of Licensed Automobile Manufacturers, to which periodically he contributed spectacular features.

As the business expanded, Durant expanded with it. Having practically the only low-priced car in the A. L. A. M., the Buick was much in demand by licensed agents, and its continued rise thus was made easier. When the industry was attaining boom proportions Durant again heard the whirr of the stock ticker and seized the opportunity, and a couple of years ago the first was heard of his merger plans. Originally they proposed an issue of stock at \$1 per share, a sum well within the purse of the country bank clerk, the preacher, the widow and the orphan. In the light of today it appears that had this plan been carried out an enormous "cleanup" must have been possible. But apparently Durant figured that it would be as easy to get \$100 per share as \$1, and that the larger sum would carry more weight in Wall Street, and wherever else stocks are traded in. The General Motors Co. was the result. Of course the Buick company was its nucleus, and to it were added several other well-known and going concerns, and many others which were not so well known and which merely thought they were going. At all times Durant's faith in himself was admirable. When his wisdom in acquiring a lot of "lame ducks" was questioned, he declared that lameness was the fault of the mismanagement and that under proper direction—his own—the lame could be made first to walk upright and then to gallop to the goal of prosperity. Some of the General Motors purchases, however, proved very lame, indeed, and not even a near-Napoleon could make them acquire more than a hobble. The chief purposes they served was in lengthening the General Motors' list of "properties" designed for impressing prospective investors.

It quickly was made plain that General Motors was a "one-man institution." Durant was its general and he was his own colonel, his own major and his own lieutenant. He dominated it from top and bottom and brooked no interference. He is a prodigious worker and the wonder is how he attended to so many details, great and small, and lived through it all. He kept one eye on his factories and another on the stock ticker, and the while he dreamed of world conquests. When a Detroit press agent-biographer caused a huge grin to spread throughout the trade by describing Durant as a "wizard" and as "the Napoleon of the automobile industry," he did not overdraw a picture that had been etched in one by no means small imagination. That Durant saw himself the Napoleon of the industry scarcely admits of doubt. His dream of producing 200,000 cars per year and of dictating terms to his competitors serves as abundant proof. He

dreamed of making every part that enters into an automobile, from nuts and bolts and tires to motors and chassis, and even of selling them to rival automobile manufacturers. He fancied that he could produce them in such quantities and at such prices that few, if any, of the parts makers could compete with him, and they must needs shut up shop or turn elsewhere.

Pending the realization of this dream, he made the most of his position as an enormous buyer. He sought to fix the prices of those who would sell goods to him—to buy at his own price. It was his habit to declare that he himself would manufacture the goods before he would pay the asked price, and he would say it in such a forceful, dominant, convincing manner that no weak brother could stand before him. Unhappy the milk-and-water salesman who encountered Durant!

Branches, some of them housed in specially-built structures, had been established in many unusual localities, apparently with an eye to rendering agents unnecessary, and the Buick plant in Flint, Mich., had taken on the appearance almost of the realization of an overnight dream. It had expanded at such a rate that it employed more than 15,000 workmen. The town was not large enough to contain them and their families. It was necessary to pitch hundreds of tents to shelter them. There seemed almost as many tents as there were houses. The sight was one that made eyes bulge and one not easily forgotten by the visitor to Flint. The census, taken before the skyrocket reached its height, gives an idea of what Durant activity had done for the town. The census figures show that its population had increased 196 per cent. And while tents were being erected in Flint, Durant was busy with even more heroic plans in Detroit. There he meant to build a gigantic factory in which parts of all sorts would be made by the million, and which would bring woe to all who once had sought to dictate prices to the near-Napoleon. He at least obtained the right to the necessary land for this big factory.

Despite his many other activities, Durant at no time lost sight of the stock ticker. He was bent on having the dear public share his prosperity; he believed that an exchange of the public's money for his stock certificates was a fair exchange. Opinions differ as to whether he was intent on a "clean-up" or was carried away by a lust for power that made him see in General Motors a second Standard Oil, with himself as the dominating over-lord—as not merely a captain of industry but the lieutenant-general of it and one to whose greatness the world must pay tribute and bear homage. There is abundant evidence that he loves the goddess of chance, but whatever his innermost thoughts, not even his worst enemy will accuse Durant of being a "piker." He did

large things in a large way, and sought only large returns, and did not count the final cost of such doings. His supreme faith in himself appears to have befogged his view.

The failure of General Motors' shares to reach the value he had set on them appears to have been his sorest point, and that it brought many drafts on his choicest vocabulary and caused him much gnashing of teeth readily is conceivable. The stock market refused to respond to his best and most determined and most spectacular efforts.

When his exasperation first became pronounced, he had himself designated a repository for the stock that he might better manipulate it. Large dividends—in certificates—had been declared; Durant had refused to pay overdue Selden royalty and had prophesied bombastically he would force the Selden group to "eat out of his hand," but when his bluff was called he quickly paid and made his peace; he had sent attorneys to Washington to oppose the rest of the industry by favoring a reduction in the import duty on automobiles; these and other spectacular things had he done, and they served to obtain wide publicity for Durant and Buick and General Motors. They all suggested "big money" to and for the public if it would but wander into the stock market. When his own best efforts proved of no avail, Durant caused to be organized the General Motors Securities Co., whose purpose was to "boost the stock." Wall Street experts were employed and they did their level best. Their literature made the long established railroad and industrial securities, not excepting Standard Oil, look like green goods, and mere imitations of the real thing; it made appear that any person who purchased other than General Motors, with its prodigious "earning power" of 34 per cent., was in need of a keeper.

Durant himself was not idle; his eye was still on the ticker tape and he was doing his part to make it hum and to assist his Securities company. He had himself interviewed by the financial publications; he caused to be printed confidential information giving the payment of Selden royalties which showed Buick to be the biggest payer and therefore the biggest producer; several other General Motors' properties were high up on the list; others, the "lame ducks," were nowhere and the inclusion of these latter seems to have been an almost fatal error. When applied, the law of general average indicated that General Motors was topheavy and that a few producers were being employed as stalking horses for a lot of non-producers. The owls of Wall Street are too wise not to grasp the import of such things. They grasped it, of course, and as a result the General Motors Securities Co. made no greater progress in "boosting the price" than the "wizard" himself had done.

On the face of things, it seems that it was "Napoleon" Durant's effort to bolster this last grand assault to carry the Public that caused him to over-reach himself and forced him at last to bow his head to the men who have money to loan at high rates. Having let the world of investors, and others, know that the Buick company was by far the largest producer of motor cars, and apparently having proved it by the publication of confidential statistics, it was necessary to keep it at the head of the list; the slightest recession must prove fatal to the stock market campaign. Accordingly, the tented city of Flint was kept humming. Buick cars were produced without regard to the demand, which already had more than come abreast of the supply. There were no orders for them, but they were shipped, hundreds or thousands of them, to the Buick branches; others were stored nearer to the Buick factory. From 5,000 to 9,000 is the estimate of the Buick overstock. Royalty is paid to the Association of Licensed Automobile Manufacturers only on cars that are sold, and it was paid on these cars even though they were not sold; bear that in mind. Perhaps it is too much to say that the cars were produced to impress the stock market, but there is every indication that they were made to appear as sales for no other purpose. In itself the amount of the royalty is a mere drop in the bucket, but the sum represented by the Buick overstock is so great that a child can understand why Durant was forced to cry for help and to pay a stiff price to get it.

Whatever may be said of him, the little "wizard" kept up his front and had his nerve with him at all times, and, in the figurative sense, "died game." His wand may have been bent or broken and lost some of its magic, but his audaciousness in the final effort to keep up appearances of undiminished prosperity was so astounding that, however unwise, it cannot well fail to provoke an admiring glance even from those who have felt the effects of its expensiveness.

The population of Flint, Mich., has shrunk since the census enumerators called a few months ago; there are many tents without occupants; a huge parts factory remains unbuilt in Detroit; the dream of producing 101,000 General Motors cars in 1911, or even 100,000 of them, has vanished into thin air; a Securities company has shut up shop; a hand out of which an industry was to be invited to feed and a head which contained visions of world-conquests have other things to occupy them, and if a near-Napoleon has not met his Waterloo, he at least knows the location of the financial Elba.

The whole career of General Motors and its "wizard" is an illuminating example of the effects of over-capitalizing prosperity and of attempting to combine stock jobbing with the manufacture of merchandise.

**NEW DYNAMOMETER FOR A. C. A.**

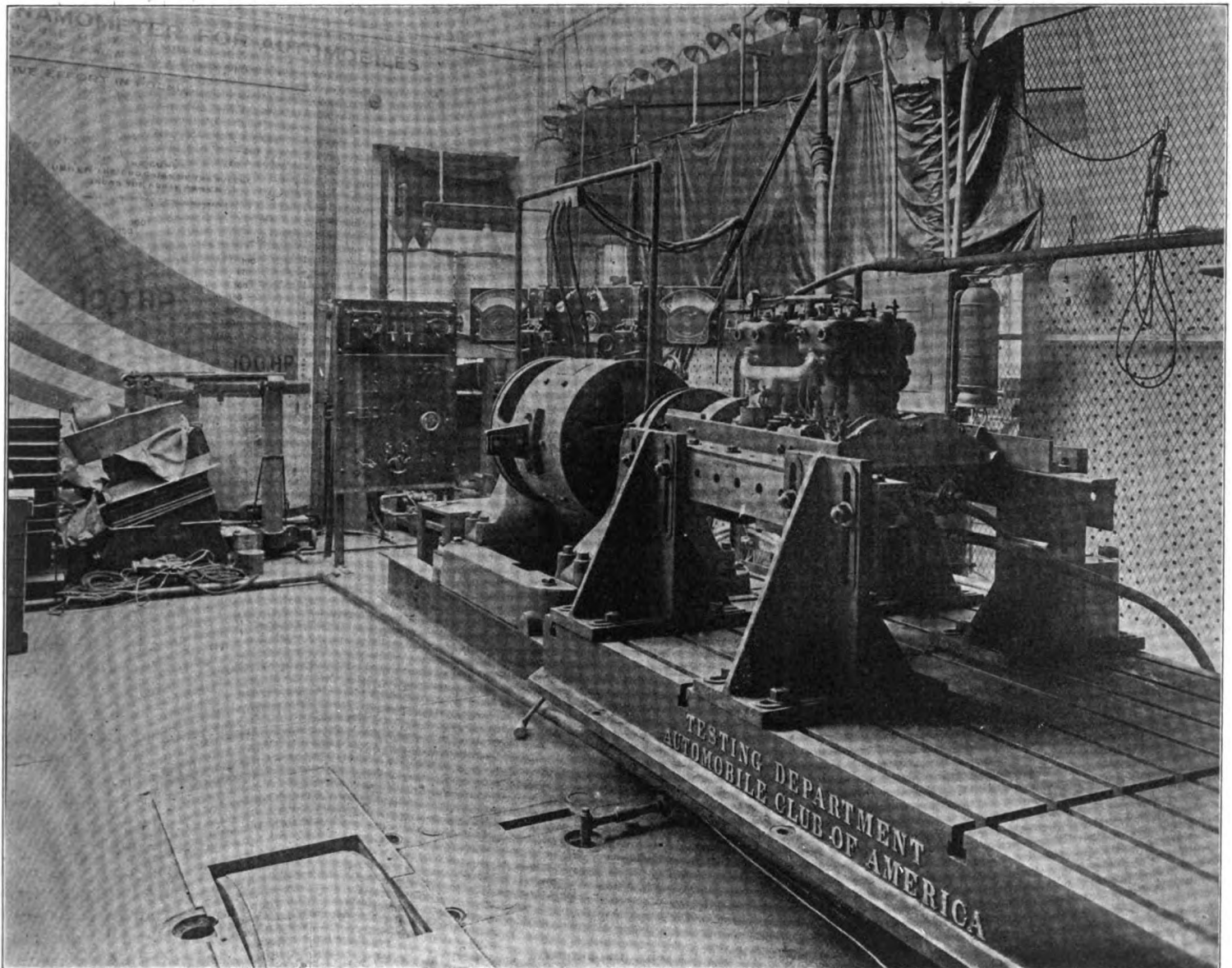
**For Testing Engines Instead of Rear Wheel Horsepower—Ingenious System for Weighing the Fuel.**

Supplementing if not supplanting the highly elaborate and complicated dynamometer installation which the Automobile Club of America set up some two years

truly standard test conditions where slippage of tires on the roller drums and other variable elements are concerned.

As the main element of the new system, which is of the electric type, a Diehl type K motor is employed, the motor being hung in a swinging cradle on ball bearings and in effect being a dynamo when operated by the gasoline engine that is, under test. The motor, because of its special windings, has capacity to carry a heavy

generator set in the building, driven by a motor operating on Edison current. This independent control of the fields permits the proportioning of the load according to the desired speed for the gasoline engine under test. Further means of varying the load are provided by a water barrel rheostat for the armature current, with an electrode plate that may be raised or lowered in the barrel to give greater or less resistance through the increased or diminished



ELECTRIC DYNAMOMETER SYSTEM OF THE A. C. A. FOR TESTING GASOLINE ENGINES

ago for testing of the horsepower actually delivered at the rear wheels of cars, a new dynamometer has been erected in the same room on the eighth floor, for the purpose of testing motors alone or motors in combination with change gear mechanism. The new system gives promise of much more active use than the older one, which latter, despite its remarkable ingenuity and ambitious completeness, has passed into idleness because of seeming frailties in its operation and the difficulties of providing

load at practically any speed, as would be necessary in such variations as the testing of one motor developing 50 horsepower at 1,500 r.p.m. and subsequently another developing the same power at 600 r.p.m.

The winding gives interpoles in series with the armature to prevent sparking and to afford a wide range of flexibility. The fields are controlled independently of the armature by Edison lighting current or, should the latter develop serious fluctuations in voltage, from a constant voltage

distance of water between it and the return electrode at the barrel's bottom.

In line with the shaft of the electric mechanism is a bed plate, 5 x 9 feet, with standards and saddle angles for the support of whatever automobile, motor boat or aeroplane engine is to be tested. The length of the bed plate is such that the transmission or change gear system for any given engine also may be accommodated, interposed between the gasoline engine and the electric dynamometer if the





**DISSOLVES GLIDDEN INJUNCTION**

**Court Decides A. A. A. Alone Has Power  
Over the Trophy—Chalmers is Now  
in Full Possession.**

The Chalmers Motor Co. now is in possession of the Glidden trophy, the temporary injunction restraining its delivery, which was obtained by H. O. Smith, president of the Premier Motor Mfg. Co., having been dissolved. The decision was rendered on Thursday last, 8th inst., by Judge Putnam, sitting in the New York Supreme Court in Brooklyn, N. Y. He holds that no evidence of fraud having been shown, the decisions of the rules and officials governing such sporting contests are not subject to judicial reviews—a decision in line with every other known effort to have the courts take cognizance of such affairs. The action brought by Mr. Smith was filed against the American Automobile Association and its contest board and the Chalmers Motor Co., and sought to restrain the board's reversal of the referee's award of the trophy to the Premier entry. In his decision, Judge Putnam reviews the case and says:

"This is a motion to continue the temporary order of July 23d, restraining the delivery of the 1910 Glidden Trophy. The referee, Mr. A. H. Whiting, decided in favor of plaintiff's car. The contest board, however, sustained an appeal and awarded the trophy to the Chalmers Motor Company. Plaintiff charges that this action of the contest board was unwarranted, being against the association rules, contrary to the terms and conditions under which the contest took place, and a breach of the trust created by the donor's deed of gift. This suit seeks to set aside the decision of the contest board and to reinstate plaintiff as winner.

"In 1905, Mr. Charles J. Glidden offered this trophy for yearly competition under the terms of a deed of gift to the American Automobile Association, providing for the adoption of rules to govern such contests. This was to be a reliability run, since called the 'Glidden Tour.' The deed of gift (as later modified) declared that this trophy should be competed for annually by members of the association, and that the winner should hold the trophy until won by another. The A. A. A. had adopted various rules through its contest board, to which has been delegated the regulation of such competitions. In March, 1910, the contest board issued advance copies of a set of rules, called the 1910 Contest Rules, intended to govern the various competitions to be conducted under sanctions issued by that board on behalf of the association. These were subdivided to apply to many different contests, including reliability tests.

"The purpose of the Glidden Tour is to try out and test the endurance of what manufacturers call a 'stock car,' that is, a car such as is regularly sold to purchasers, and not one specially equipped for a contest. In the rules for 1910, the entrant was required to file a stock car certificate of description, in which the details of the car were fully set forth. A technical committee was to make a preliminary inspection of the stock car to determine if it corresponded with the stock car certificate. Various provisions were made as to the examination and report by this technical committee, as well as regulating the penalties in the contest after the cars should have entered upon the tour.

"Plaintiff was the entrant in the 1910 contest of a Premier car. In the certificate of description was mentioned a hand oil pump and oil tank. This car was duly examined by the technical committee and declared to be eligible. During the tour, a protest was made, upon the claim that this hand-pump to inject oil into the crank-case of the engine of the Premier car was not a part of the regular stock equipment. At the conclusion of the tour, in which plaintiff's car showed the best score, this protest was considered by the referee, who deferred action until he had received a special report from one of the technical committee who had visited the factory of the Premier Motor Manufacturing Company. Subsequently, the referee overruled the protest and declared plaintiff's car the winner. The Chalmers Motor Company, who had entered a car in the name of the defendant George W. Dunham, appealed from this decision to the contest board, which, after notification to the plaintiff, took up the appeal on July 21st, and after receiving proofs by affidavit and hearing arguments, on July 22d, sustained the appeal of the Chalmers Motor Company, on the ground that there was not sufficient evidence to prove that the auxiliary oil tank and pump equipment was stock equipment, so that the Premier company had failed to furnish evidence sufficient to establish the stock status of its cars entered in respect to this lubricating equipment, and for that reason the Premier cars were disqualified.

"It is a primary principle of all sporting contests that rules must be made by the bodies conducting them, and that those regularly appointed must decide who wins. The entrants in such competition, as a matter of fairness, agree to abide by the decisions of the umpires, referees, or boards having jurisdiction, as the rules may provide. Especially is this true in a contest where the points of eligibility are highly technical, and the association is composed of experts who themselves are well fitted to judge. Before a dissatisfied entrant can ask the courts to interfere and set aside the rulings of a sport-governing body, there must ordinarily be evidence of fraud, either by a competitor, or by the official making

the decision. The track judges, umpires, referees, executive committees and governing boards of such associations are supreme within themselves when acting under their recognized authority. If they give the parties concerned a fair opportunity to be heard, and there is evidence on which their findings can be based, their decisions, in the absence of fraud, are not subject to judicial review. Thus, Judge Gildersleeve, delivering an opinion reversing a special term order which granted an injunction in favor of a disqualified contestant at a race track, said:

"When the original contract was entered into, . . . the owner of the said colt, in effect, subscribed to the defendant's rules, and they are binding upon his successor. Those rules named the tribunal to which any dispute, that might arise out of the contract, should be submitted. That tribunal was the executive committee of the defendant corporation. They had jurisdiction of the cause of action alleged in the complaint herein, and it was the duty of the plaintiff to submit to their decision, (*Corrigan v. Coney Island Jockey Club*, 48 N. Y. St. Rep. 582, 586).

"These principles have been generally recognized. The fact that this trophy is of large value and that, although in the form of a sporting contest, the tour really affords a test of the endurance of a car, from which important financial consequences ensue, does not change the rule. Such consequences flow from many sporting contests, but these results do not give the court jurisdiction.

"The rules that courts of equity will interfere to secure the possession of valued objects having a sentimental interest to the owner comes under a different head of the jurisdiction. Plaintiff's proceeding, while nominally to gain possession of the trophy, is in reality to obtain a reversal of the present award, with a reinstatement of the Premier entry as the winner. Were jurisdiction entertained, proof would be naturally taken with respect to the equipment of the 1910 Premier cars from nearly all the large cities of the United States. On this motion, 73 affidavits from 26 cities have been submitted. Upon a hearing on the merits, even with the utmost diligence, such a mass of testimony from widely dispersed points might require several months for its completion. After decision rendered thereon, appeals would naturally follow, so that the final judicial ascertainment of the result of the 1910 Glidden Tour had in the meantime taken place. Heretofore, the law has declined this jurisdiction not based on those property rights usually cognizable by courts. To change now and hear the loser in court would also imperil the spirit and interest in all such contests.

"In the present case, the objections to the form of the appeal and to the proceedings before the contest board are largely technical. While in some respects informal, such proceedings do not appear to lack any substantial protection to all con-

cerned. The high standing of the parties forbids the suggestion of fraud; in fact, upon the argument it was acknowledged that there was no fraud as to anyone involved. In the absence of fraud, the question for the court is not whether, passing primarily upon the evidence, it would have reached the same conclusion as that of the contest board, or whether their conclusion was reasonable or unreasonable, but simply and wholly whether the case before them was so bare of evidence to sustain the decision that no honest mind could reach the same result (*People ex rel. Jackson v. New York Produce Exchange*, 149 N. Y. 401, 414).

"No winner of this trophy has a right to hold it for more than one year, and its ownership remains in the American Automobile Association. There is, therefore, no necessity to impose the terms of a bond conditioned to conform to any future order of this court, as the association is a responsible defendant able to comply with any final decree.

"The temporary injunction is vacated and dissolved with costs."

#### Indianapolis Outlines a \$25,000 Race.

Right on the heels of the ringing down of the curtain for the season at the Indianapolis (Ind.) Motor Speedway comes the announcement of the ambitious plans of the management for next year, which will eclipse in scope all previous projects of the kind in the history of American motor racing. The opening meet of the season is scheduled for May 27th, when an international 500 miles race with \$25,000 in prizes will be staged; if it occurs it will be the most valuable speed contest ever held. There will be ten cash prizes, commencing with \$10,000, a fortune in itself for the winner, \$5,000 to the second man and so on down to \$50 for tenth place. Trophies also will be given to the first ten finishers. Cars to be eligible for this blue ribbon event must not exceed 600 cubic inches displacement, must weigh not less than 2,300 pounds and must have shown a speed of at least 70 miles an hour.

#### Plan Christmas Races on Portola Course.

Since the Automobile Club of California practically has thrown the Portola race on the table by indefinitely postponing it, the San Francisco tradesmen are stepping into the breach in an effort to save it. At a conference of the leading dealers last week the matter was discussed and it was decided to lay plans for a race on Christmas Day over the Portola course. Twelve of the leading dealers signed an agreement to hold a roadrace on that day, so that while 'Frisco may not have her Portola this year the chances are bright that she will have a good road race of some sort. Leon T. Shettler is the leader of the movement, and has offered \$500 towards a prize, provided the other dealers also chip in.

## MUNROE CAPTURES ENOS TROPHY

### Four Earn Clean Road Scores in Buffalo Contest and Technical Committee Decides Award—Four Days' Struggle.

Four days' traveling over 800 miles of give and take roads failing to evolve a winner in the Automobile Club of Buffalo's touring reliability contest on the 7th to 10th inst, the technical committee took a hand in the game when the cars completed the last day's run and required but a few hours to besmirch the four perfect scores as well as to add further penalties to the sheets of those already assessed.

When the mathematical session was over Charles F. Monroe, who drove a Maxwell runabout, stood highest, with a score of 995 points, having lost five points on the technical grill. He therefore was awarded the handsome trophy offered by Laurens Enos, president of the club. The trophy must be won three times to become the permanent property of the holder.

In addition to the trophy, which was a free-for-all award, there also were offered prizes to the class winners, and here again Monroe won, taking the prize in his class, the runabout division for cars costing \$1,201-\$1,600. The other class winners were the following: Runabouts, \$800 and under, A. G. Schoenthal, Maxwell; runabouts, \$801-\$1,200, H. Tate, Hudson; runabouts, \$1,601 and over, H. A. Bauer, Oakland; touring cars, \$1,601 and over, A. Gallatin, Pullman; touring cars, \$1,201-\$1,600, Louis Engel, Cartercar. All of the twelve cars which started finished.

Buffalo was the starting and finishing point of each day's run, the routes being through different territory. At 6:30 Wednesday morning the first car was checked out for the run to Rochester and return, 195.8 miles. Penalties were inflicted for mechanical troubles only, leaving the cars free to make any speed they desired without penalty, although running schedules were laid out for each class. When the cars checked in at Buffalo for the night five had been penalized—Schoenthal's Maxwell, Richardson's Oakland, Haycock's Reo and Kelley and Schaun's Regals.

Salamanca was the turning point of Thursday's run, the mileage for the day being 200 miles, with roads harder than on the day before. Four fell from grace this day—Dull's Parry, Schaun's Regal, Schoenthal's Maxwell and Richardson's Oakland. The last three also lost points on the first day.

Although Friday's run of 206.4 miles was the longest of the series, most of the cars managed to keep well ahead of the schedule and check in early. Geneseo was the noon stop, and was reached via Tonawanda, Lockport and Holley. The return trip led through Springwater, Mount Morris and

East Aurora. Again four cars suffered penalties, viz.: Dull's Parry, Schoenthal's Maxwell, Bauer's Oakland and Tate's Hudson.

Sliding up and down mud banks and fording creeks two feet deep was part of the proceedings on Saturday's run to Hornell and return, which was the hardest of all. When Buffalo was reached Saturday night only four cars—Gallatin's Pullman, Engel's Cartercar, Messler's Pullman and Monroe's Maxwell—had gone through the four days without penalization. They, however, were docked in the technical examination. Following are the final scores:

Drivers and Cars.	Points.
Charles F. Monroe, Maxwell.....	995
H. Tate, Hudson.....	991
H. A. Bauer, Oakland.....	968
A. Gallatin, Pullman.....	964
Arthur Messler, Pullman.....	964
Louis Engel, Cartercar.....	962
P. R. Haycock, Reo.....	952
L. M. Dull, Parry.....	933
T. J. Kelley, Regal.....	903
F. J. Richardson, Oakland.....	870
A. G. Schoenthal, Maxwell.....	857
R. D. Schaun, Regal.....	641

#### Wildwood "In Bad" Over Prizes.

In abandoning its proposed Labor Day beach speed carnival at Wildwood, the North Wildwood (N. J.) Automobile Club probably did a wise thing and saved itself from humiliation, for there is much indignation toward it on the part of several tradesmen along Philadelphia's automobile row, who won trophies at the July 4th meet and never have received them. Frequent requests for the prizes have been met with the answer that there were no prizes to be had, and last week a searching investigation of the situation revealed a peculiar state of affairs which is not at all creditable to the club. The entry blanks stated that silver trophies would be awarded, and inasmuch as the contest was run under A. A. A. sanction and rules, it meant that the prizes must be ten times the amount of the entry fee or \$50 in each case. There were thirteen prizes to be given, which at \$50 each would cost \$650. The club officials gave an order on a local jeweler for \$300 to pay for the prizes and promptly relieved itself of all responsibility in the matter. Not so the contest committee, however, and when the delay in delivering the prizes was laid at its door, Chairman Keir promptly aired the whole affair and stated that he declined to buy any prizes unless the full amount due, \$650, was forthcoming. The matter has been called to the attention of the A. A. A., which now is looking into the case.

#### Will Drive Lancia in the Vanderbilt.

William Knipper, the well known racing driver, who was a member of the Chalmers team last year, is preparing to take the wheel again after a period of inactivity on account of illness. He has signed up to drive a Lancia in the Massapequa Sweepstakes in the Vanderbilt.

**MILE DIRT RECORD BADLY MUSSED**

**Upset Four Times at Minneapolis, Oldfield Finally Getting the Honor—Great Crowd Sees Good Sport.**

For the second time in the same week Barney Oldfield in the Benz cracked the American "one mile circular dirt track record," at the state fair grounds, Minneapolis, Minn., on Saturday, 10th inst., and as the timing on this occasion was by electrical apparatus, in conformance with the contest rules, it is probable that he will be credited with it. The new figures are 49.25 seconds, and replace the mark of 50 $\frac{1}{4}$  seconds made by Ralph DePalma with a Fiat on the same track a year ago lacking a day. Although DePalma was present on Saturday to defend his laurels he was unable to hold them, but he did succeed in bettering his old figures.

It was quite a gathering of the racing clans who visited the Flour City for the speedfest which was the feature of the closing day of the state fair, as in addition to Oldfield and DePalma, there were present, Chevrolet and Burman of the Buick camp, and Kerscher, Oldfield's handy man, as well as several other lesser lights. It was a very bad day for the mile record, for not once but six times was it knocked down and jumped on. Oldfield, of course, did the hardest jumping, but DePalma, Burman and even Kerscher all contributed a considerable share of the damage.

The trials, which were the most interesting number on the card, were called first, and each man was allowed two starts. DePalma with a "90" Fiat, who led off, blew a plug on the first attempt, and Kerscher in the Darracq followed. He surprised the crowd by circling the track in 50.29, and immediately after compressed these figures to 49.75. Bob Burman with a snub-nosed Marquette-Buick was clocked in 51.20, the first time, and on the second attempt he got down to 50.61. Then DePalma came out for another try and made a big strike, wiping out Kerscher's mark and replacing it with 49.35. This performance brought forth loud cheers from the crowd. Oldfield and the Benz came forth, however, and after a warm up Barney gave the signal. He streaked around in thrilling fashion, leaving clouds of dust in his wake, and was caught in 49.25, ten one-hundredths of a second better than DePalma's time. Oldfield took a second trial but blew a tire and slowed, but at that was clocked in 50.80, equalling the old record.

Honors were well distributed, all of the "big guns" winning one event, while Burman carried off two.

The Australian pursuit contest was run twice, and Burman captured it both times. In the first instalment, Chevrolet

and Nyman, Hudson, got bad starts, and after Burman had won, the ludicrous sight was witnessed of Chevrolet, his mate, and Nyman protesting his victory. The race was re-run and Burman again overhauled the field at 9 $\frac{1}{2}$  miles.

DePalma, Burman and Kerscher put up a pretty three-cornered battle in the five miles free-for-all. The Italian took the lead at the break and immediately started to make a runaway. For a time it seemed as if he would succeed, but in the second lap Burman found his stride and coming up strong passed DePalma, holding the lead for a lap. In the last lap DePalma took the lead again and opened a gap of 60 yards, which he maintained to the finish.

A big field came out for the free-for-all handicap, Oldfield in the Knox being on scratch. This was a sort of Elgin reunion, six of the pilots who participated in the national stock chassis carnival being on the line. Nevertheless they didn't get away with the cream and had to be content with the leavings, for Harford, a local man with a fleet Velie, showed a clean pair of heels to the bunch and never was overhauled. Oldfield was unable to catch the front division, and Monckmeier, Staver, and Endicott, Cole, collected second and third money.

Although the track was very dusty no accidents occurred. The crowd was the largest ever present on the last day of the fair, the stands being filled to overflowing while the rail was lined with people several rows deep. Hundreds of cars were parked on the grounds. The summary:

Mile time trials—Oldfield, Benz, 49:25; DePalma, Fiat, 49:35; Kerscher, Darracq, 49:75; Burman, Buick, 50:61. American mile circular track record.

Five miles, stock chassis 161-230 cubic inches—Won by Burman, Buick; second, Frayer, Firestone; third, Endicott, Cole. Time, 5:11.36.

Ten miles, stock chassis 301-450 cubic inches—Won by Chevrolet, Marquette-Buick; second, Clarke, Cutting; third, Gelnow, Falcar. Time, 9:28.66.

Australian pursuit, stock chassis under 231 cubic inches—Won by Burman, Buick. Distance, 9 $\frac{1}{2}$  miles. Time, 9:22.90.

Five miles free-for-all—Won by DePalma, Fiat; second, Burman, Marquette-Buick; third, Kerscher, Darracq. Time, 4:29.

Five miles handicap, Minnesota cars only—Won by A. A. Hanson, Ford; second, M. R. Nyman, Hudson; third, Tom Hegland, Pullman. Time, 6:10.24.

Five miles handicap, free-for-all—Won by N. M. Harford, Velie; second, Monckmeier, Staver; third, Endicott, Cole. Time, 5:57.

Five miles, stock chassis 231-300 cubic inches—Won by Gelnow, Falcar; second, Clarke, Cutting; third, Pearce, Falcar. Time, 5:29.08.

**DENVER OPENS ITS NEW SPEEDWAY**

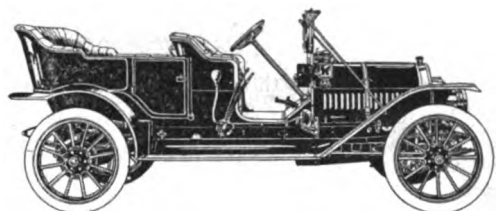
**One Race Constitutes the Card and 12,000 People Go Far to See it—Hall Makes a Runaway.**

Twelve thousand people, the largest crowd that ever turned out for a local meet, saw Harry Ball drive an Apperson Jackrabbit to victory in the three hours inaugural race which formally opened the new Denver (Col.) Motor Speedway on Labor Day, 5th inst. Ball won by over 13 miles, reeling off 166 $\frac{2}{3}$  miles with only one stop. Harold Brinker, Renault, who drove very consistently, was second with 153 $\frac{1}{2}$  miles, and J. McDonald, in a Thomas Vanderbilt car, finished third, with 143 $\frac{1}{2}$  miles to his credit. Four cars started for the \$1,000 purse hung up, this being the only race on the card.

Ball and McDonald started off like hurricanes, while Brinker set a steady pace, refusing to be lured into brushes with the others. McDonald ran into trouble early, breaking a spring in the thirteenth lap, which cost him a lot of valuable time for replacement and put him hopelessly out of the running for first place. While he was off Ball clinched his grip on first by steadily pulling away from Brinker and eventually lapping him, which action he repeated several times in the course of the race. Emmett Johnson, Chalmers, developed trouble early, and after pluckily fighting a losing fight he eventually was forced to retire. When McDonald returned to the fray he burned things up at a great rate in an effort to recover his lost ground and registered the fastest lap of the day, 3:05 for 3 $\frac{1}{2}$  miles. He could not overtake the other, however, and Ball retained the lead to the finish. Brinker was satisfied to hold a steady pace and had no trouble. Second place was his reward.

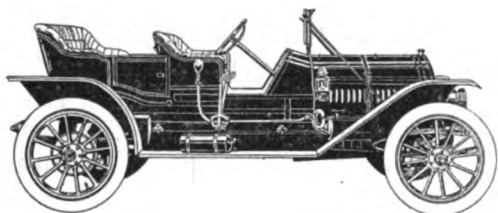
The meet was given by the Denver Motor Club. The track itself was built by the Denver Motor Speedway Association at Sable, on the Union Pacific line and seven miles east of Denver. The association leased a tract of land and laid out a 3 $\frac{1}{2}$  miles dirt track, with wide turns and long straightaways, where high speed is attainable. For the opening the stands were not entirely completed, but the large crowd uncomplainingly watched the races beneath a scorching sun. At present the only means of reaching the course is by automobile or train, the trolley not yet connecting it with the city. The track is oval shaped and has a natural road surface with a hard clay base, the top being filled and rolled until it is as smooth as asphalt.

The stands when completed will be the largest in the West, it is claimed, and will afford a view of the entire course. An excellent road leads to the track.



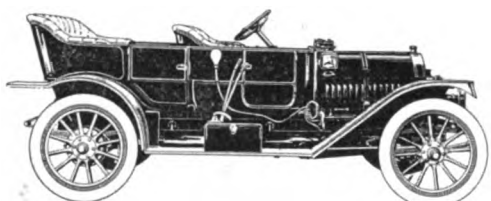
**Model "51" Touring Car, \$2200**

Motor  $4\frac{3}{4} \times 4\frac{3}{4}$ . Unit power plant. 120-inch wheel-base. Tires, 36 x 4.



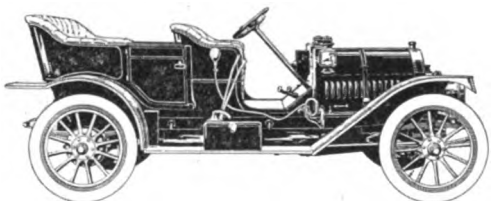
**Model "51" Tourabout, \$2200**

Detachable Tonneau. Motor  $4\frac{3}{4} \times 4\frac{3}{4}$ . Unit power plant. 120-inch wheel-base. Tires, 36 x 4.



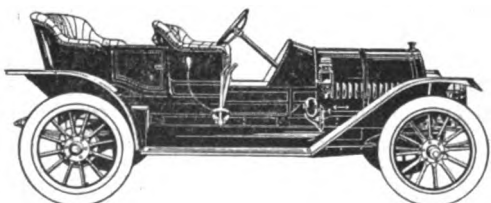
**Model "41" Convertible Torpedo, \$1700**

Motor  $4\frac{1}{2} \times 4\frac{1}{2}$ . Unit power plant. 110-inch wheel-base. Tires, 34 x 4. Front doors and panels, \$50 extra.



**Model "41" Touring Car, \$1700**

Motor  $4\frac{1}{2} \times 4\frac{1}{2}$ . Unit power plant. 110-inch wheel-base. Tires, 34 x 4.



**Model "41" Tourabout, \$1700**

Detachable Tonneau. Motor  $4\frac{1}{2} \times 4\frac{1}{2}$ . Unit power plant. 110-inch wheel-base. Tires, 34 x 4.



**Model "51" Con**

Motor  $4\frac{3}{4} \times 4\frac{3}{4}$ .  
wheel-base. Ti  
panels, \$50 extra

## Touring Cars Made Into

## Torpedoes in an Hour's Time

"Jackson" touring models can be fitted with removable front doors and panels. For fall and winter use or extended touring the protection afforded in a car of the torpedo type gives it an advantage that cannot be denied. There are many automobile users, however, who feel that for city driving they do not care to sacrifice the freedom and convenience of an open car. It is to these that we particularly recommend our Convertible Torpedo Types. Front doors and panels are furnished at a slight extra charge—the loosening of a few bolts suffices to remove them, leaving the regular standard touring car.

## Oil-Tight and Dust-Proof Construction

"Jackson" motors are the Unit Power Plant type, Motor Clutch and Transmission being enclosed in one oil-tight and dust-proof case. Perfect lubrication

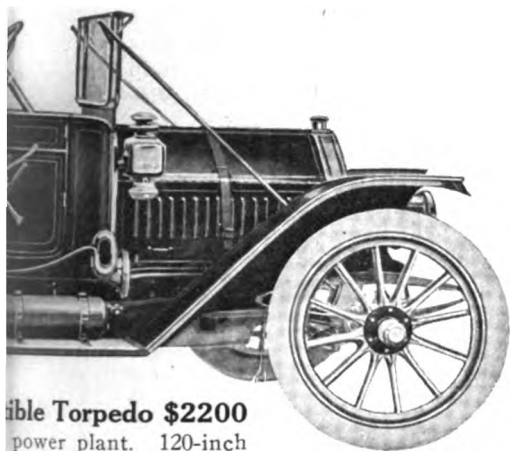
# JACKSON AUTOMOB

Licensed ut



# Jackson

## 1911



Model 28 Torpedo \$2200  
Unit power plant. 120-inch  
wheel-base. Front doors and

is assured by the circulating oil system—dust and dirt are absolutely excluded from the working parts.

Plenty of oil and no dirt—that's why "Jackson" motors are wear-proof.

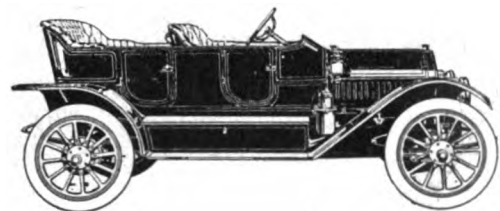
### Full Elliptic Springs—Front and Rear

All models are hung on full elliptic springs, front and rear. Their free, easy action absorbs the jolts. This is an important factor in the life of a car. The "Jackson" is the acme of comfort—rough roads can be taken without jar. In all models the weight is carried close to the ground, and the cars have a balance that is appreciated by the critical driver.

### Ten Years of Successful Production

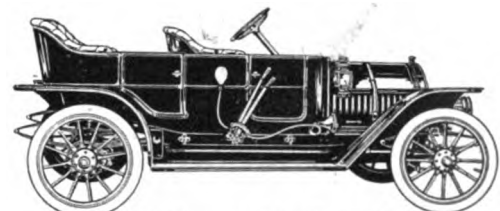
The Jackson Company has built practical, successful automobiles for the past ten years—it has never offered to the public an inferior car.

The Jackson plant is complete in itself. Modern machinery and efficient manufacturing methods enable us to produce a car from the raw material—a car which contains the utmost value for the price.



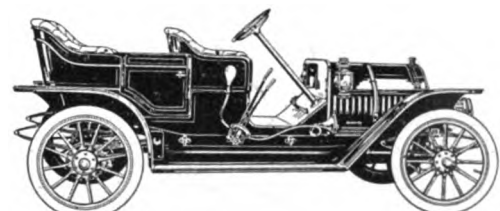
Model "28" Torpedo, \$1650

Full Torpedo. Left-hand drive. Motor  $4\frac{1}{2} \times 4\frac{1}{2}$ . Unit power plant. 115-inch wheel-base. Tires,  $34 \times 4$ .



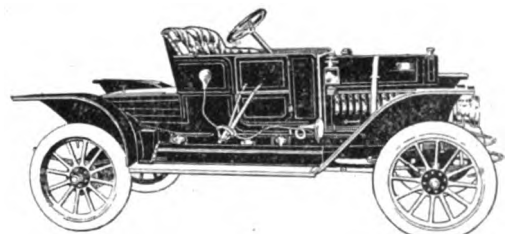
Model "35" Convertible Torpedo, \$1250

Motor  $4 \times 4$ . Unit power plant. 105-inch wheel-base. Tires,  $32 \times 3\frac{1}{2}$ . Front doors and panels, \$40 extra.



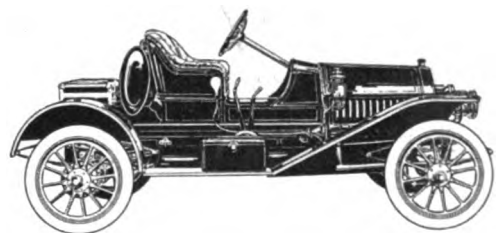
Model "35" Touring Car, \$1250

Motor  $4 \times 4$ . Unit power plant. 105-inch wheel-base. Tires,  $32 \times 3\frac{1}{2}$ .



Model "35" Roadster, \$1250

At a slight additional charge, the Model "35" will be furnished with detachable tonneau, which may be replaced with a roomy and convenient deck. Front doors and panels, \$40 extra.



Model "25" Roadster, \$1100

Motor  $3\frac{1}{2} \times 4\frac{1}{2}$ . 105-inch wheel-base. Tires,  $32 \times 3\frac{1}{2}$ . Gasoline tank at rear. Trunk \$15 extra.

# JACKSON COMPANY,

1240 Main Street  
Jackson, Michigan

Selden patent

## RESTORING THE "OLD WIRE ROAD"

Famous Highway Through the Ozarks is the Subject of Novel Campaign—  
Splendid Scenic Features.

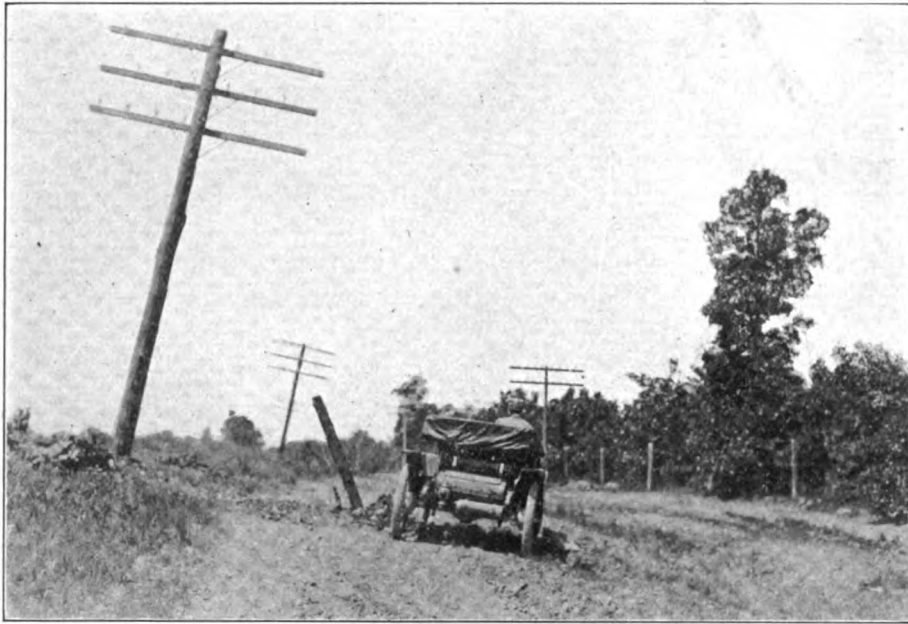
Backed in enthusiastic style by the Springfield (Mo.) Republican in its home city, and by the St. Louis Star, J. A. White, a prominent motorist and dealer in Springfield, Mo., is waging an unusually interest-

Attention to the present condition of the road was called by the "Under Three Flags" trip of the Flanders "20" car during the past summer. Reproduction of photographs of the trip and the story told by the crew of the car stirred the citizens of Springfield to action. Mr. White was appointed the chairman of a committee to push the work along. A party in six motor cars was organized to make the trip to St. Louis. After tremendous effort, using the information gleaned from the crew of

line. An effort has been inaugurated to secure a wagon bridge across the Gasconade at Arlington where the "Under Three Flags" car ran over a railroad bridge between two sections of a stock train. The 'Frisco this portion of Missouri—has promised to transport, free of charge, road and bridge materials. Property owners and township officers have promised assistance. The Springfield Republican has offered a handsome trophy for competition in a tour, to be held as soon as the road is placed in practicable shape.

A unique feature of the situation is the unsolicited promise of John Hosmer, a wealthy farmer whose 1,600 acres lie near Marshfield, one of the small mountain towns along the road. The "Old Wire Road" passes directly through Mr. Hosmer's farm. In fact, it was in one of the fords on his property that the "Under Three Flags" car, after coming all the way from Quebec without assistance, had to summon aid for the first and only time. Mr. Hosmer promises to boulevard all the old road within his property and is using his influence with his neighbors to secure similar co-operation. Since the "Under Three Flags" car passed through, he has become a motorist himself and his farm now contains two Flanders "20" roadsters in its equipment.

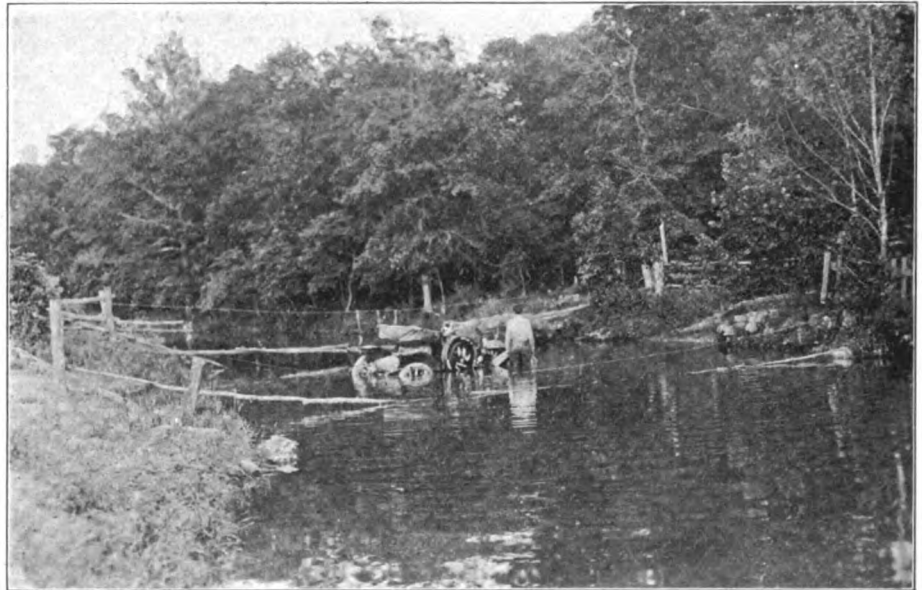
The general stirring up of interest has resulted already in a considerable improvement on the "Old Wire Road" in the populated districts. As soon as the systematic



THE "OLD WIRE ROAD" AS IT APPEARS TODAY

ing good roads campaign, looking toward the complete restoration of the "Old Wire Road" over which, 25 years ago, passed the caravan of settlers' wagons, carrying the hardy pioneers who formed the advance guard of civilization in the great Southwest.

In its day, when the United States Government kept it in condition, the "Old Wire Road" was one of the most famous highways in the country. Traversing the ridges of the Ozarks it led from St. Louis to Springfield and thence to Fort Smith, Ark., and Dallas, Tex. At St. Louis it communicated with the National Highway from Pittsburg. The two formed a famous chain. All the way through the Ozarks the road was favored with natural gravel bottom, some of it constructed at great expense to prevent washouts. In many places the work of the government engineers is still in evidence. As a general rule, however, the stalwart row of poles carrying the successors of the original wires which gave the road its name, alone remain to point the general direction. The old road itself has been allowed to deteriorate to such a stage that it is now unsafe even for wagons. The bridges were washed away years ago and, in some places, the original highway has been fenced in and appropriated by the mountain farmers.



THE WORST FORD IN THE OZARKS, NEARLY THREE FEET DEEP

the "Under Three Flags" car, the trip was made over the 240 miles that separated the two cities.

With the information at hand Mr. White has gone to work in real earnest. Personal work has been done with the progressive citizens of Union, Sullivan, Rolla, Lebanon, Richland and the smaller towns along the

improvement is begun, next year, work will be pushed, and Mr. White and his compatriots feel that there is an excellent chance for completion during 1911. In case this hope is fulfilled, the enterprise will place at the disposal of motorists one of the most beautiful tours afforded anywhere in the United States.

## PROTESTS MARK KANSAS CITY RUN

Three of Them Filed Which May Affect  
Final Award—Nine Days of Much-  
Mixed Going.

Bucking the old Santa Fe trail ended for the contestants in the annual trophy run of the Kansas City Star on Thursday, 8th inst., at the starting point in that city, with a trio of protests.

The ninth and last day's journey from Topeka, although scheduled to be over early in the afternoon, proved most exacting, because of mud. In fact, the lightest penalty imposed was 111 points; the others ran upward to 272 points. Several cars had three and four chains "chewed up" and no end of tire trouble. One car took water seven times. On the last day the Ford was the only entrant that escaped penalization for work or replenishment, but it was taxed 124 points for being 124 minutes late.

The penalties for the day were: Buick No. 17, 125 points; Ford No. 36, 124 points; Reo No. 12, 136 points; Buick No. 18, 118 points; Maxwell No. 15, 121 points; Fal No. 34, 144 points; Speedwell No. 20, 111 points; Case No. 37, 159 points; Haynes No. 25, 128 points; Velie No. 11, 174 points; Great Western No. 5, 175 points; Kissell Kar No. 10, 260 points; Mitchell No. 32, 272 points; Buick No. 19, 274 points; Regal No. 16, 233 points; Maxwell No. 14, 158 points.

While the technical examination was in progress, C. L. Taylor, the Reo agent, filed a protest against the Buick, charging in part that the latter had a special radiator. On Monday afternoon the committee decided in favor of O. W. Hiatt, entrant and driver of the Buick No. 17, which was third in road scoring, with 88 points to 82 for the Reo No. 12 and 83 for the Case No. 37. The Buick, however, received only 54 points penalization in the technical examination, which gave it a total of 142 demerit points. The table of total penalizations follows:

Car	Final Standing
Buick, No. 17.....	142
Reo, No. 12.....	148
Speedwell, No. 20.....	153
Maxwell, No. 15.....	163
Ford, No. 36.....	164
Haynes, No. 25.....	184
Buick, No. 18.....	184
Case, No. 37.....	192
Fal, No. 34.....	249
Great Western, No. 5.....	259
Kissell Kar, No. 10.....	334
Mitchell, No. 32.....	361
Regal, No. 16.....	556

Following the Reo protest as to the stock equipment of the Buick came another from the Ford, regarding the time schedule set between Topeka and Kansas City. The

officials agreed upon a general 16-mile an hour schedule in Topeka in order that the cars might all move into Kansas City in a body. But the schedule was set Wednesday night when the sky was bright with starlight. In the early morning a heavy wind storm was followed with such a deluge of rain that the roads were found to be the worst in the entire run. On every other day of the tour all cars costing more than \$1,600 traveled on a 20-mile an hour schedule; those under at the rate of 18 miles an hour. The point in the Ford protest is that when the schedule was readjusted, that the Ford as well as all other cars selling under \$1,600 should have been given their regular advantage in time. This protest, which is said to have virtue, was overruled by Referee Strait, but, it is said, will be carried up on appeal to the contest board of the American Automobile Association. If the referee's decision is reversed, the Reo and Ford would be given credit for 42 points for 42 minutes—the difference between the two time schedules—which would make Reo No. 12 first and Ford No. 36 second.

Not to be outdone in protesting, O. W. Hiatt of the Buick, who received the award, announced Monday afternoon that he intended to enter exceptions. He said: "I was assessed 10 points for a chipped spoke, which is not provided for in the rules. Then there are other little things that the examiners found for which I think the car was punished too severely.

Two nights of undisturbed sleep at Colorado Springs—where the Motor World's report last week left them—proved the greatest of treats for the contenders. The city, having grown so used to visitors, including the Gliddenites of 1909, did not pay much attention to the motorists, who were glad of that fact, because of their fatigue. During the stop there the referee went over his figures and found that through a clerical error the Mitchell's score was 912, instead of 921. The sixth day's run from Colorado Springs was to Sharon Springs, Kan., the original plan of going to Denver having been abandoned.

The 209 miles run proved rather uneventful except for one bad mudhole. After the fine scenery around Colorado Springs, the rolling prairie seemed monotonous. Only a few small towns were passed through, and so little life was observed that the travelers made it a practice to salute the prairie dogs. The two Carter cars found it a bad day, one breaking its rear axle and the other one of its front wheels, neither reporting at Sharon Springs up to midnight. The most dramatic incident of the day was the pitching of P. P. Covert, Kansas City agent for the Inter-State, out of that car. The Inter-State left Colorado Springs an hour late, because of a leaky gasoline tank and then had tire trouble. Between the two, the only thing left to do was to "beat it"

Starting up a short hill near Cheyenne Wells, the speedometer read near 50 miles an hour. Then the wheels struck a big hump. In consequence, Covert, on the back seat, was tipped out in a trice, executing a back somersault. The car was 200 yards beyond before the brakes could stop it. The passengers expected the victim had been killed, but before they could run back the dust covered lump in the roadway moved, and struggling upward exclaimed: "Where's my goggles?" The "glasses" were found 40 feet away. He was only bruised.

Arrived at Sharon Springs, the tourists found the sleeping tent idea had been abandoned. Accordingly they had to bunk six in a room. Some of the quarters, too, were in unoccupied and unfinished buildings, with shavings on the floor.

The seventh day's journey to Wilson, Kan., was an uneventful joy ride of 207 miles. Topeka was the objective point on the eighth day, a hard trip of 190 miles, because of rain that churned up the deep, sticky gumbo. Taken altogether it was with one exception the most trying day of the contest. The mud was responsible for the Great Western's losing its lead. That car had been the only one to retain its perfect score that far. In addition to other troubles it broke a spring, losing altogether 81 points. A wheel that obstinately refused to stay on spoiled the chances of the Maxwell No. 15, which previously had been debited only three points, to which 26 points were added. For scores of miles the sunflowers grew so close to the roads as to thrust their heads into the faces of the passengers. These sunflowers were responsible, however, for far more trouble. They were planted so thickly that the sun could not penetrate to the surface of the road and so dry the mud.

Junction City was the noon stop. Early in the afternoon the Fort Riley reservation was passed through, but very gingerly, as the roads were in bad condition. Some difficulty was experienced in following the route book, as houses had been repainted different colors, while more wires had been strung on the telegraph poles. Among the late happenings of the day, the Inter-State stripped a drive shaft and the Auburn withdrew because of a broken axle, while the Buick No. 19 cracked two springs. Nineteen cars out of the 37 that started were left for the last leg of the 1,565 miles run.

There was much local pride felt over the fact that the Gleason truck which carried the night gowns of the party was manufactured in Kansas City, being the only home product competing.

One or two cars were unfortunate in that their drivers and observers were disabled by illness. In one case the substitutes found the magneto an enigma and were obliged to halt another contestant and request advice.

## OVERHAULING CONTEST RULES

**Many Improvements Discussed by Manufacturers—Real Amateurism at Last Seems to be in Sight.**

Although the general rules committee of the Manufacturers' Contest Association on Friday last, 9th inst., held an all-day session in New York, at which time the A. A. A. contest rules were discussed in all their bearings and a number of changes ratified, their nature was not disclosed. Several matters were considered of such importance that they will be referred to the entire membership for decision by mail vote, and until this vote is recorded no recommendations to the A. A. A. will be made nor anything definite regarding the proposed change be made public.

Among the subjects taken up were the following: That the decision of the technical committee of the American Automobile Association be final regarding the eligibility of any car to enter contests held under the rules of the A. A. A.; that the importer in stock car and stock chassis events be considered on exactly the same basis as the American manufacturer; that amateur drivers competing in track or road races against professional drivers shall lose their amateur standing.

Other matters considered were the amount to be charged by promoters for entry fees; the prompt reporting in track events of contestants to the starter or his assistant at least 30 minutes before the first race is scheduled; an effort to enlist the interest of the United States Signal or Engineer Corps as observers in really national reliability tours; that a paid technical committee be placed at the disposal of the A. A. A. contest board next year.

Whether or not the use of demountable wheels which do not involve a change of wheel bearings or that portion of the hub rims in all classifications, will be submitted to the members at large by a mail vote, as will the proposition to reduce the minimum weight limits in the stock chassis class.

Another important subject of great interest to race followers which was thoroughly discussed was the question of the length of time drivers in long distance events on special speedways would be allowed to continue at the wheel without change. The rules governing 24-hour races were also considered from the same standpoint.

The following members were present: Howard E. Coffin, chairman of the committee, Hudson Motor Car Co.; A. N. Jervis, American Locomotive Co.; Geo. H. Strout and G. W. Brown, Apperson Bros. Automobile Co.; Jesse Froelich, Benz Auto Import Co. of America; Geo. Dunham, Chalmers Motor Co.; Herman G. Farr, Knox

Automobile Co.; A. L. Riker, Locomobile Co. of America; J. A. Emise, Lozier Motor Co.; F. F. and C. W. Matheson, Matheson Automobile Co.; M. C. Reeves, Maxwell-Briscoe Motor Co.; Wm. E. Metzger, secretary of the Manufacturers' Contest Association, Metzger Motor Car Co.; Geo. M. Dickson, National Motor Vehicle Co.; Homer George, Nordyke & Marmon Co.; H. O. Smith, vice-president of the Manufacturers' Contest Association, Premier Motor Mfg. Co.; W. B. Hurlburt, E. R. Thomas Motor Co.; W. H. Vandervoort, Moline Automobile Co.; Russell A. Field, assistant secretary-treasurer.

By invitation were present Alfred Reeves, general manager of the Association of Licensed Automobile Manufacturers, a member of the advisory committee of the Manufacturers' Contest Association; S. M. Butler, chairman of the contest board of the American Automobile Association, and A. L. McMurtry, chairman of the technical committee of the A. A. A.

### Elgin Carnival Meet to be Free-for-All.

Despite the apparent popularity of strictly stock car races with the makers, as indicated by the large number of entries in the Elgin carnival, this seemingly increasing sentiment for stock car races now would appear to be deceiving, for the classic Fairmount Park road race in Philadelphia next month, and always a strict stock event, having attracted but three entries, has been changed to a free-for-all in the hope of attracting more nominations. When the Quaker City Motor Club, the promoter of the race, first announced the conditions for this year's race, it adhered to the rules which governed the two previous races and stood pat on the strictly stock chassis platform.

For some reason, however, but three were forthcoming and in an eleventh hour effort to save the race from failure the club has thrown it open to all cars up to 750 cubic inches, regardless of the place of manufacture. New entry blanks have been issued, setting forth the revised rules which are as follows:

There will be four divisions, classified according to piston displacement as follows: Division 3-C, 231-300 cubic inches; division 4-C, 301-450 cubic inches; division 5-C, 451-600 cubic inches; division 6-C, 601-750 cubic inches. In addition to the main prize of \$2,500 to the car irrespective of class which makes the fastest time for the 200 miles, there will be four prizes of \$1,000 to the winners of each division. This division of prize money to class winners displaces the usual system of giving first, second, third, etc., prizes.

After the change in the rules was made two more entries were received, making five in all. They are as follows: H. F. Grant, Alco; George Robertson, Benz; E. A. Hearne, Benz; Len Zengle, Chadwick, and Al Mitchell, Chadwick.

## TWO DAYS RACING AT OMAHA

**Only One Outsider Competes and Sport on New Speedway is Tame—Peculiar Accident Befalls Doherty.**

Postponed from the original dates, the 4th and 5th inst., on account of rain, the inaugural meet on the new Omaha (Neb.) Motor Speedway was held on Saturday and Sunday, 10th and 11th inst., and was productive of no records and only ordinary racing. The double card was a small one and with one or two exceptions the events were tame. Chester Cheney, of Chicago, in a Staver, won the feature race on Saturday, the fifteen miles free-for-all, in 18:02, beating Nutting, Midland, by a wide margin. He also won a class event on Sunday, and Ed. Richenbacher, Firestone, bagged a couple of races easily. The top-notch of the meet, the 25 miles free-for-all, on Sunday went to Graves in an E-M-F, but his time was not taken. Sloan in the National was second, and Cheney third. A most unusual accident occurred in this race. The Mason car, driven by Floyd Doherty, was rounding a turn in the fourth mile, when the exhaust pipe became loose and dropped into the chain. The sudden stop of the wheels caused the car to turn a complete somersault, falling on Doherty and breaking his collar bone. His mechanic was unhurt. There was a large attendance both days. The track is a one-mile dirt oval with high banked turns, and was built by the Omaha Motor Speedway Co., which conducted the meet. The summary:

### First Day—Saturday, 10th...

Ten miles, cars costing \$1,000 and under—Won by H. E. Ouderkirk, Buick; second, Walter Smith, Hupmobile. Time, 8:35½.

Five miles stock cars fully equipped—Won by H. E. Nutting, Midland; second, George Reim, Cadillac; third, J. V. Graves, Stoddard-Dayton. Time, 6:22.

Fifteen miles free-for-all—Won by Cheney, Staver; second, Nutting, Midland; third, Graves, E-M-F. Time, 18:02.

### Second Day—Sunday, 11th.

Ten miles, cars costing \$1,500 and under—Won by Ed. Richenbacher, Firestone; second, Cheney, Staver; third, Ouderkirk, Buick. Time, 11:14.

Ten miles, cars costing \$2,000 and under—Won by Ed. Richenbacher, Firestone; second, Chester Cheney, Staver; third, H. E. Nutting, Midland. Time, 11:06.

Fifteen miles, cars costing \$2,500 and under—Won by Chester Cheney, Staver; second, Frank Sloan, National; third, Ed. Richenbacher, Firestone. Time, 15:39½.

Twenty-five miles free-for-all—Won by J. Graves, E-M-F; second, Frank Sloan, National; third, Chester Cheney, Staver. Time not taken.

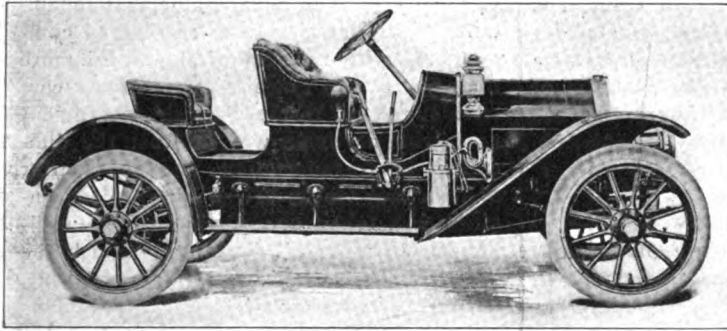
**CONVERTIBLE BODY MODEL ADDED**

**Great Western Offers Combination Two-in-One Car—Full Torpedo Also in 1911 Line.**

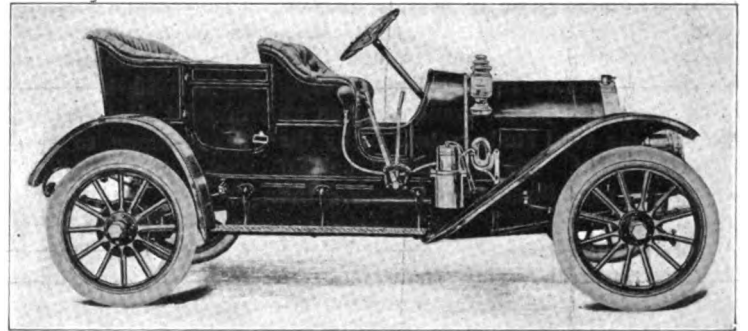
Two distinct types of bodies that have not had representation in the Great Western cars before have conspicuous place in the line of five cars which have been presented by the Great Western Automobile

is plenty of leg room in the tonneau and also some space for the storage of luggage. A single rumble seat, which is furnished without additional cost, is interchangeable with the tonneau, so that the purchaser has a small tonneau or a roadster at option. The car is fitted with a hooded dash, with sufficient protection along the sides of the foot boards to keep the dust and wind away from the feet of those riding in the front seats. The combination demi-tonneau and roadster sells for \$1,600, and like

equipped with invisible hardware in preservation of the smooth exterior effect. The doors are fitted with locks and keys, so that they may be locked when the car is to stand for any length of time. The control set is located inside the body and as there are no brake rods or other similar fittings outside the body line, the car is especially free from outside encumbrances. The car is intended for four passengers, but, as in the case of all the other models, there is a generous surplus of room. In



GREAT WESTERN ROADSTER



GREAT WESTERN TOURING CAR

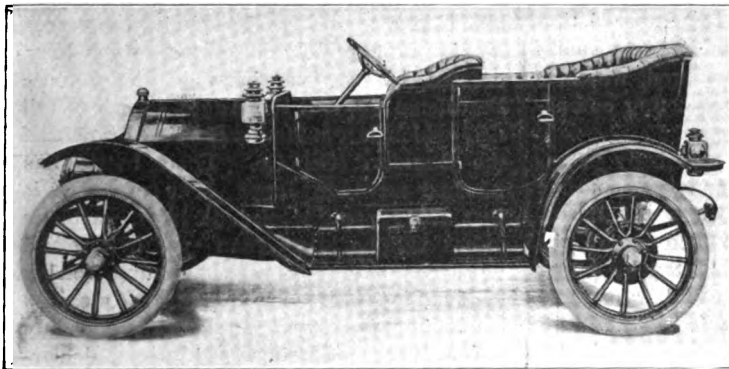
Co., of Peru, Ind., for the 1911 market. These new bodies are a full torpedo and a small tonneau, which latter is styled the "demi-tonneau" combination body, inasmuch as the tonneau portion may be removed and an interchangeable rumble seat substituted, making the roadster model. The standard touring car and the closed front or "semi-torpedo" models which complete the line bear a close resemblance to their predecessors of this year. The five models, which are supplied with standard tread or with wide tread for use in the South, have the one chassis in common, with a four cylinder power plant of 40

the touring car, which sells for the same price, is finished with deep coach blue for the body and cream for the wheels.

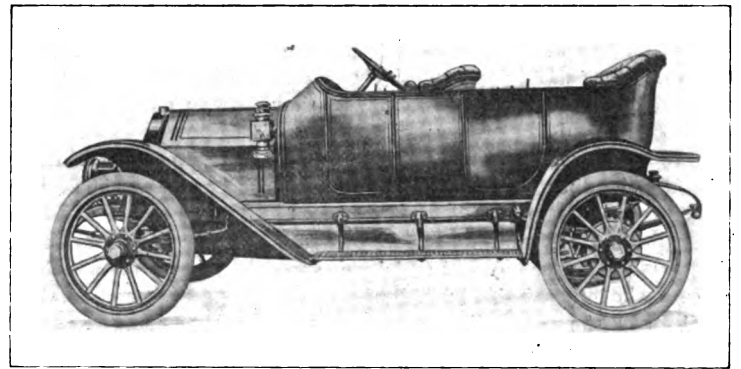
The closed front model, designated the "semi-torpedo," sells for \$1,650 and gives the driver the additional protection of high side doors. The body trimmings are in Circassian walnut, and the body itself, as well as the frame, axles, hood and radiator sides, is painted in royal purple. A pleasing effect has been obtained by aluminizing the radiator. The sides of the tonneau are high and the upholstery is particularly luxurious. Between the driver's seat and that of the front passenger there is a com-

addition to the regular equipment, which includes magneto, large gas lamps, generator, oil lamps, horn, tool box, full set of tools and strap robe rail, the full torpedo model has a Prest-O-Lite tank, while tires 35 x 4 are used.

Long stroke construction for the motor,  $4\frac{1}{4}$  inch bore and 5 inch stroke, again is used. The cylinders are cast separately, allowing the use of a five bearing crank shaft. Water jackets of ample proportions surround the cylinders, and as the radiator is very large, the possibilities of overheating are obviated to a great extent. The ignition equipment consists of dry cells for



GREAT WESTERN SEMI-TORPEDO



GREAT WESTERN FULL TORPEDO

horsepower. The chassis has been lengthened as to wheel base to 114 inches, or an increase of two inches, and the motor now is enameled and the aluminum parts scraped and polished so that the general finish is much improved, but in few other respects has it been thought necessary to make any changes of the mechanical construction.

Although designed to carry four passengers, the "demi-tonneau" is particularly roomy and will carry five people. There

partment large enough for small tools or memoranda. Hook locks are provided for the doors, to prevent the latter from opening accidentally while the car is going over rough roads.

Brown is the chosen color for the full torpedo model, which is priced at \$1,750. The dash is of the deep shrouded hood or scuttle type, while the high side lines of the body run in a straight horizontal line from front to back. All four doors are

starting and a Remy magneto, which latter is located on the exhaust side of the motor and is operated by the same shaft that turns the centrifugal pump. Both the magneto and the pump are readily accessible, as is the carburetter, which is placed on the inlet side of the engine.

Emphasis is laid on the liberal bearing space provided for the crank shaft. The total bearing surface is  $14\frac{1}{2}$  square inches, and the statement is made that no four cyl-



inder Great Western car ever has had a broken shaft. The pistons are machined to a given weight and have a convex head. The head is ribbed on the inside. Convexity of the piston head is chosen with a view to increasing the compression and to preventing oil collection, it being claimed for this construction that it greatly reduces carbon troubles. The machined smoothness is carried clear to the ends of the convex portion, and the pistons are provided with oil grooves.

Cast aluminum I-beam section is employed to give strength to the crank case. In addition, steel studs run through from the cylinder base to the crank shaft caps, so that the thrust of the crank is taken up largely by the steel studs instead of by the crank case itself. Die cast nickel babbitt bearings are used throughout for the crank shaft.

A solid forged cam shaft is used, with the cams integral. This shaft may be taken from the front of the motor by removing the front of the case. Its gear, as well as the other gears operating from the crank shaft, runs in oil. The intake valves are in pockets at the side of the cylinders, and easily may be reached by removing the caps into which the spark plugs are set. In order to get rid of the exhaust gas quickly, the exhaust valves are placed in the cylinder heads, in cages which readily may be taken out. The exhaust manifold is enlarged as it nears the muffler pipe, so that its area at the lower end is four times that of the ports of the cylinder exhaust.

Compression in the crank case is relieved by a novel form of vent pipe, which has been designed so that the oil cannot blow out over the exterior of the motor. Oil can be poured in through this vent pipe, but by the provision of vanes of aluminum alternately forward and back, the oil is baffled in any attempt to come out from the crank case. The bottom of the crank case is divided into compartments so that oil maintains the level of two holes through which the oil returns to the reservoir.

The oil chamber is so designed that the connecting rods dip at all times and the oil is splashed thoroughly to all bearings and working parts. A gear driven vane pump on the end of the cam shaft pumps the oil from the reservoir to the sub-bottom in the lower half of the crank case. There are no adjustments, as the level is fixed at the factory and it is only necessary that there be oil in the reservoir.

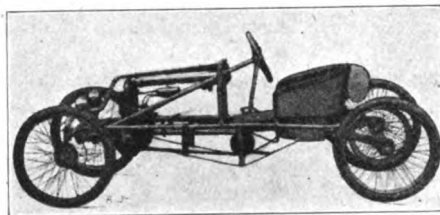
Selective change gear, with three speeds forward and reverse, again is used. Some improvements have been made in the construction of the gears, and more pains have been taken to polish the shafts and gears. Sufficient strength margin is allowed in the teeth to permit considerable abuse or careless treatment. Both shafts in the transmission are supported at their ends by Timken roller bearings. The clutch is of the cone type, and is covered with

Raybestos, under which engaging springs are placed, to make the clutch take hold firmly but gently. The steering gear is of the worm and sector type.

Front springs are 38 inches and are semi-elliptic, while the rear springs are 44 inches long and are three-quarters elliptic. The cars now are being equipped with rubber bumpers throughout. Strut rods are dispensed with, and the propeller shaft is enclosed by a tubular housing which does away with the torque rod. Eleven inches road clearance is afforded by the front axle, which is a very heavy I-beam steel forging. A semi-floating rear axle, the same as in 1910, is continued. The frame is of pressed steel with a  $2\frac{1}{2}$  inch drop, and has a sub-frame to support the transmission, motor and clutch.

#### Feather Weight Car on Novel Lines.

Small cars have had plenty of development in the United States, not only in variety but in magnitude of production, but



SKELETONIZED SMALL CAR

in few of them has there been quite the effort at lightness and skeletonizing that is represented in the machine which has been built by an English designer and which has a total weight of 250 pounds. The contractor of the vehicle, Harold E. Dew, of Eynsford, Kent, has named it the "Whippet Spider," the significance of the name being apparent when it is remembered that a whippet is a small light racing dog, something like a miniature greyhound, which is much used in England for sporting competition.

Dispensing with a hood and body paneling, the car has a frame and body outline of tubing. It is fitted with a  $4\frac{1}{2}$  horsepower single cylinder air-cooled engine, the power from which is transmitted by a link belt to an adjustable pulley and from there to the center of the back axle. The weight and complications of a differential are avoided by making the rear axle shaft of one piece and fitting each wheel with a "free wheel" device which permits it to over-ride the shaft when compensation of speed is necessary between the inner and the outer wheel in turning a curve.

Three point suspension is utilized, a transverse spring being fitted in front and quarter-leaf springs at the back. The bearings are fitted with ball bearings throughout. With a gear ratio of 5 to 1, the vehicle is claimed to have a speed of from 4 to 40 miles per hour, and the two gallon fuel tank is claimed to hold enough to

run it 160 miles. The tires are  $26 \times 2\frac{3}{4}$ . It has been given a long trial by its owner, who has set about to embody the improvements suggested by his experience in a new model having the seats in tandem.

#### Motor Mails Across the Deserts.

The transportation of mails and small parcels always has been a matter of great difficulty in the waterless regions of Asia Minor and Arabia, and it was not until the so-called Bagdad railway was built with German capital in Asia Minor that inhabitants of the interior were enabled to communicate with the rest of the world more than five or six times a year. Motor cars were suggested to the Turkish government as solving in some way at least the difficulties of transportation, and the matter of installing trucks driven by gasoline engines was taken up. Owing to the well-known slowness of all things Turkish the negotiations dragged along for some time, until the firm which had submitted plans for the establishment of such a line became disgusted and dropped the whole idea. Now, however, the question of establishing an automobile mail service between Bagdad and Aleppo is again being considered by the government. A "pathfinder" automobile, in charge of a Turkish official, lately made the desert journey from Aleppo to Bagdad, and an appropriation has been made for road improvement; six French motor cars, it is stated, will be used in the service. The mails are now carried across this district on camels, which make the trip in nine days, with one waterless stretch of 300 miles.

#### Cut-Price Fuel War in England.

Owing to a disagreement between the importers of gasoline, British motorists are enjoying a temporary benefit by the struggle for monopoly. The situation has been created by warfare between the Asiatic Petroleum Co. and the Anglo-American Oil Co., which latter is the English branch of the Standard Oil Co. Their battle has reached an open stage. The prospect is that for several weeks, at least, gasoline prices will be lower than ever before and motorists generally are beginning to lay in supplies. Present quotations mean a loss to importers and distributors, who only a few weeks ago increased prices, declaring that the trade was unremunerative. It is said that retail prices also will be reduced in all the larger European markets.

#### Intended Garage Made into a Market.

Indicating, perhaps, that the garage facilities of New York City have been extended beyond the requirements, the alteration of one of the largest garage buildings on upper Broadway, corner 77th street, into a general produce market is of more than passing interest. The plot covers approximately 10,000 square feet, and the building erected on it is two stories high.

**HUPP'S DISTINCTIVE ELECTRIC**

**Embodies Only Standard Forms of Construction but its Design Singles it Out—Some of Its Features.**

Preliminary announcement recently made concerning the intention of the Hupp-Yeats Electric Car Co., of Detroit, Mich., to put on the market a vehicle known as the Hupp-Yeats electric, has been followed by a disclosure of the mechanical details of the new product. The company commences with the advantage of prestige lent to it by the participation in its affairs of Richard Craig Hupp, the originator of

Standard batteries of the Exide type have been selected as having been proved of high efficiency and low maintenance cost and for the further reason that because of the Exide company's many branch houses, repairs can be procured in any part of the country. The battery equipment consists of three trays of 11 MV Hycap cells, there being 24 cells in all for the 28 volt motor. The entire battery is accessibly located under the hood, which latter is of the Renault type, hinged at the dash.

Through a pair of bevel gears giving a 1 to 10 reduction, the motor drives the rear wheels direct. The rear end of the motor case is bolted fast to and closes the front of the rear axle housing, giving an enclosed dust proof drive without universal

Four speeds forward and a reverse are given in the controller, which is of the continuous torque type, so that there are no jerk gaps or momentary cessations of power in changing from one speed to another. The high speed is about 20 miles per hour, while the normal running speed is 10 to 12 miles per hour. Two pairs of expanding brakes act on the rear wheel, both being pedal operated. An ampere hour meter indicates the state of the battery charge.

Coach work, upholstery and trimmings have been given particular care. The fenders are of metal and the running boards are of aluminum, which latter metal also is used for the hub caps, bearing distinctive name plates. The wheel base is 86 inches and the tread 50 inches. Pneumatic tires, 32 x 3½, of a resiliency to afford high electric efficiency and mileage, are used as the standard equipment.

**Car that Permits of "Housekeeping."**

M. G. Carville, who is a traveling representative for a computing scale company, is making his rounds in a Warren-Detroit "30" which appears to be equipped for a trip around the world. He has removed the tonneau of his car, on the rear of the car's frame has mounted a compartment so ingeniously constructed that it is possible for him to carry a complete housekeeping equipment therein.

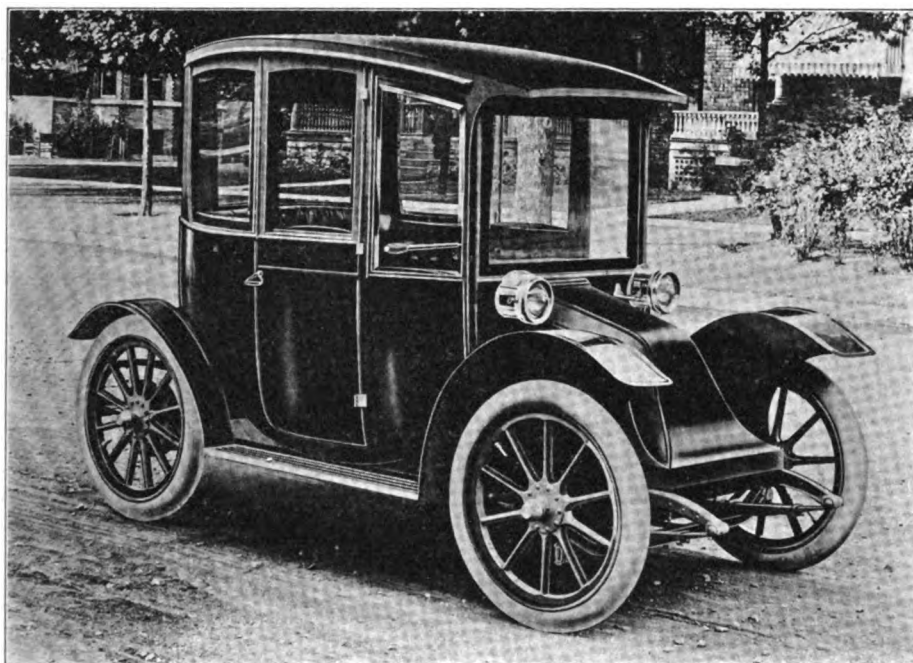
One part of the special compartment is a complete refrigerator, which consumes about 50 pounds of ice every three days. The traveler opened this and a curious crowd gathered to peer in at ice cold bottles of beer, fresh vegetables, meat and other delicacies of the season. There is an alcohol stove, washboard, dishes and other housekeeping equipment packed on the car. Strapped on the top of the compartment are two neatly constructed trunks carrying wearing apparel.

Carville has forsaken the railroads entirely. With him travels his wife, and the pair seldom stay at a hotel, preferring to camp by the roadside in a tent carried on the car.

The couple have traveled 1,326 miles in the last six weeks, and have not yet had a puncture. This is the fifth car which Carville has owned. He gives his wife credit for the design.

**Wants County to Pay for Tire Damage.**

A rather unusual claim was filed at the September session of the board of county commissioners, at Jeffersonville, Ind. David Adkins, a merchant of Sellersburg, Ind., alleged that the bad roads of the county had damaged his tires beyond and above what was to be expected on roads that were supposed to be improved, and that he therefore should be entitled to \$120 compensation. The claim was passed for further consideration, which, if it proves favorable, will cause surprise.



DISTINCTIVE DESIGN OF THE HUPP-YEATS ELECTRIC

the Hupmobile and the president of the Hupp Motor Car Co., of Detroit. As was the case with the Hupmobile in the field of gasoline cars, the Hupp-Yeats electric makes its initial appearance with elements of construction that are standard forms of mechanism, but so combined that the complete car is quite a departure from the conventional.

Concentrating on one model, the company is producing a car which has ample room for five passengers, two placed forward and the others in the rear. Tiller steer is used, with the driver at the left. A four-pole series wound Westinghouse motor is employed, somewhat larger and heavier than customarily is used in vehicles of this size, but the extra weight is chiefly in the windings. The generous dimensions of the motor windings are for the purpose of providing an unusually heavy starting torque and for pulling the car through heavy going without overheating.

joints. Imported annular ball bearings are used throughout the motor and the rear axle. The differential is of the spur pinion type, while the wheel hubs are broached square and are secured to the axle shafts by nut and cotter pin. These shafts are 1¾ inches in diameter, of high carbon steel, and their inner ends are squared into the differential gears. The wheel ends are mounted on large annular ball bearings.

An unusually large drop characterizes the front axle, which is of the inverted Lemoine type. Spherical seated ball thrust bearings are used in the knuckles. The front springs are of the semi-elliptic type and are designed with special consideration for the battery load. All spring eyes are bushed with phosphor bronze, and they work on hardened pins provided with concealed oil cups. High carbon pressed steel is used for the frame, and a 9-inch drop at the rear provides plenty of axle clearance and allows the bringing of the floor body to within 17 inches of the ground.

## DIRECT DRIVE AND NEW MODELS

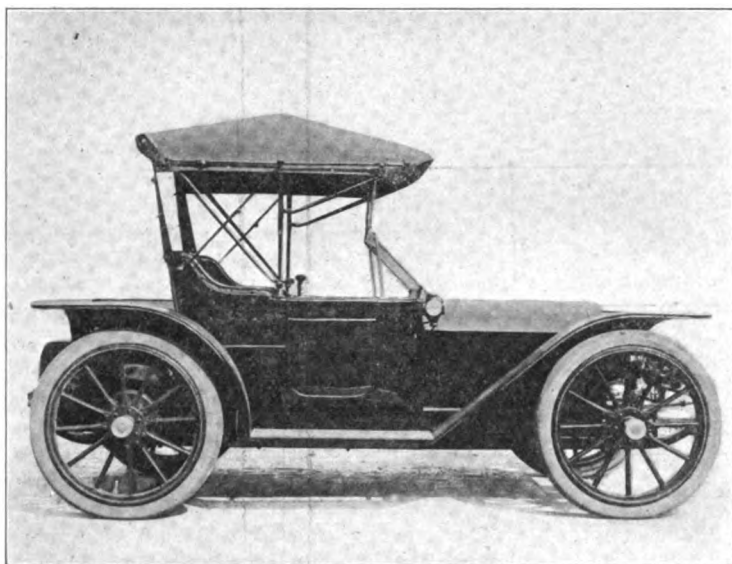
**Detroit Electrics Have Improved Transmission—Roadster on Gasolene Lines and a Larger Brougham are Added.**

Disclosing a runabout that resembles a gasolene car in its lines and presenting a larger and roomier four passenger brougham, the Anderson Carriage Co., of Detroit, Mich., also reveals a change in the transmission system of the "Detroit" electric vehicles for 1911. Direct shaft drive transmission with reduction from chain to gears is employed, the power being transmitted directly through the armature shaft

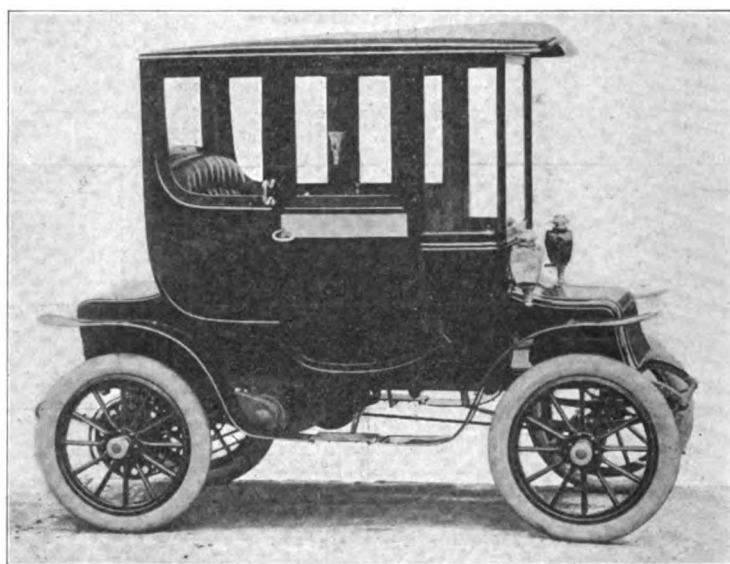
are features of the new model "P" roadster which is one of the special productions for the coming year. The four passenger brougham has been enlarged to 54 inches from the rear to the extreme of the front seat. The rear seat is 46 inches wide and 21 inches deep, while the front seat is 41 inches wide and 18 inches deep. The car has an 84 inch wheel base and the corner panels and hoods are made of aluminum to decrease weight and prevent checking of the body surface, which sometimes takes place on wood panels.

The other models are the model "T," a larger four passenger Victoria, and the "F-L," a victoria type with long Edison hood in front. Both have long wheel base and are of light weight construction. The

the world is returned by the statistics at 76,553 tons in 1909-10, as contrasted with 70,587 tons in the previous year, while the world's consumption amounted to 76,026 tons and 71,989 tons in the two years, respectively. These figures show an increase of 5,966 tons in the output and of only 4,037 tons in the consumption, whereas the augmentation in 1908-9 over 1907-8 was 4,208 tons in the production and no fewer than 9,613 tons in the quantity used. It is of particular interest to note that the deliveries in Europe in 1909-10 increased by 3,981 tons to 42,527 tons, but those in America only advanced by 56 tons. The arrivals in Europe are recorded at 44,336 tons in 1909-10, or 8,496 tons in excess of the preceding year, while the arrivals in America



DETROIT ELECTRIC BROUGHAM



DETROIT ELECTRIC ROADSTER

to a bevel gear in the rear axle. By eliminating the extra reduction through a chain or set of gears and a countershaft, several parts have been dispensed with, making for lighter weight and great accessibility, with an increase of directness and efficiency.

Silent running in the new offerings is effected by a bevel gear construction that may be adjusted to make a noiseless transmission, and the motor and gears are of the noiseless type. The adjustment of the bevel gear can be made within one-thousandth of an inch without expert assistance, by means of a cotter pin and screw, through the removal of a cap at the rear axle that forms a part of the differential housing. Without perfect adjustment a noiseless transmission is not obtainable.

Special design in the motor provides for heavy pulling ability and low current consumption. No moving parts of the motor are exposed, but the assembly is such that every unit of the mechanism may be removed separately without disturbing any of the other parts.

Low center of gravity and an 86 inch wheel base to give smooth riding qualities

model "D" brougham type, which has been continued for four years, is equipped with both shaft and chain drive.

### Gives Valuable Rubber Statistics.

How closely the consumption of rubber presses the production of this important article is clearly evidenced in the latest statistics compiled and published by the German firm of Hecht. These statistics cover the year ending June 30, 1910, and are summarized by the Frankfurter Zeitung as follows:

"The harvest of Para qualities amounted to 39,190 tons, as compared with 38,075 tons in 1908-9, while the consumption was 39,363 tons and 38,249 tons in the two years, respectively. In 1908-9 the output was 1,395 tons greater than in the preceding year, and the consumption was 5,202 tons in excess of 1907-8, whereas the production and consumption in 1909-10 were only 1,115 tons and 1,114 tons, respectively, greater than in 1908-9. The visible stocks increased from 2,682 tons in 1908-9 to 4,217 tons last year, this seeming only to have been possible by a decrease in the invisible stocks. The total production of rubber throughout

were 33,051 tons, and were less than in 1908-9. As a consequence, the European stocks rose by 2,163 tons to 5,107 tons in 1909-10, but decreased in the United States from 449 tons to 361 tons. The world's stocks are stated to be 6,998 tons, as compared with 5,024 tons in 1908-9, or an increase of 1,964 tons, whereas the stocks in 1908-9 experienced a decrease of 3,011 tons, as against 1907-8."

### Electrics Replace Old Ambulances.

While some manufacturers and merchants, whose whole trucking is accomplished by horses, still may have their doubts about the economy and reliability of the modern commercial motor vehicle, the Presbyterian Hospital of New York City at length has reached the point of installing complete electric ambulance service in place of the old style horse-drawn wagons. The hospital authorities long ago came to the conclusion that automobiles are more reliable than horse and wagon outfits, and a good deal more economical. The three new motor ambulances have been built especially for the hospital by the Lansden Electric Vehicle Co., of Newark, N. J.

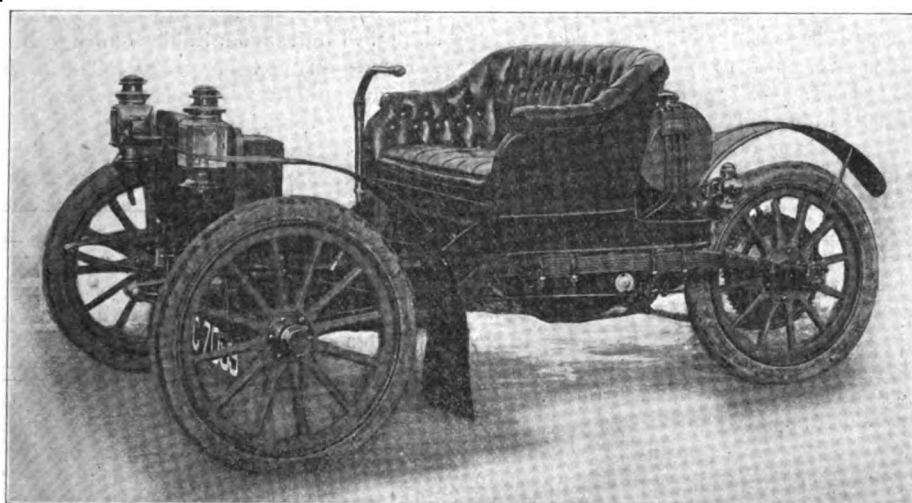
**REAR WHEEL TILTING PREVENTED**

**Kelsey's Three Wheel "Motorette" Has  
Original Construction for the Purpose  
—Light Weight and Low Price.**

Because three wheel construction does away with the complicated differential, heavy rear axle, numerous bearings and one wheel and tire, it has lured many designers and manufacturers, who later have been confronted with the difficulty arising from the inclination of the rear wheel to tilt out of line in service, but in producing a new three-wheel vehicle, styled the Motorette, the C. W. Kelsey Mfg. Co., of

the purpose of making it a powerful hill climber and for insuring its ability to negotiate bad country roads. The high clearance of 10 inches is supplemented by the added clearance effect of the three-wheel construction, which places the drive wheel in the center of the rear.

At the rear wheel, Timken bearings are used, while Parsons white brass boxes are provided for the motor bearings. The front axle is of I-beam construction and is of forged steel, while a high grade of gear steel is used for the transmission gears. The springs are made by the Spring Perch Co., of Bridgeport, Conn., and the specifications call for the same material as is used in the springs of some of the most prominent and high priced cars.



THREE WHEEL MOTORETTE DEVELOPED BY A TRADE VETERAN

Hartford, Conn., utilizes a device which is claimed to overcome any possibility of the rear wheel tilting and which is the result of ten years of experiment and study in relation to the problem. The apparatus consists of a cross rod running from one side of the frame to the other, located in the forward part of the car. Fastened to either end of the cross rod is a lever, at the ends of which are connecting rods joining the front axle. This compels both front springs to go up and down together, resulting in an effect calculated to prevent the machine from upsetting or the rear wheel tilting.

Not the least feature of the Motorette is its light weight, which is placed at 475 pounds, and the vehicle is to sell for \$385 complete. It is to be built in numerous forms, for delivery service, for combination passenger and delivery service, and as a strictly passenger vehicle. Entirely original design throughout is claimed for it, from its motor to its running gear.

For its power plant it has a double opposed motor of the motorcycle type, and the enclosed planetary transmission gives two speeds forward and one reverse, the maximum speed being from 25 to 30 miles per hour. Its conservative gearing is for

Lubrication of the motor bearings and the two cylinders is effected by a circulating sight feed oil system. From these parts the oil flows into the crank case, then overflows into the crank case bottom, where it is forced back through a filter to the original reservoir. An oil supply of one gallon and a gasoline supply of six gallons is named as sufficient for a run of from 150 to 180 miles. The light weight of the vehicle makes possible the use of motor-cycle tires on the front wheels.

**Bombay Has 1,400 Automobiles.**

According to Consul E. Haldeman Denison, of Bombay, India, there are over 1,400 cars now registered in that city, not a half a dozen of which are American. Recently, however, an American car, which retails in the United States for \$950, has been introduced and promises to become popular because of its low price and silent running qualities. It is too early yet to say whether it is going to stand well under the rough handling that most cars in India receive from the half-trained chauffeurs and the severe conditions imposed upon it through the hot and damp climate. If it proves satisfactory it will open up the market for other American makes.

**ARE READY TO PAY GOOD PRICES**

**Buyers in Argentina Want Quality and  
Durability—Buenos Aires Shows an  
Increased Demand.**

The present market for automobiles in Argentina is principally in Buenos Aires, the capital and metropolis, where there is a slowly increasing demand for high-grade cars suitable for city driving, says J. D. Whelpley, American commercial agent, in a report to the Department of Commerce and Labor. In several other cities motor cars are also in use, but they are little employed for traveling through the country generally, owing to exceedingly bad roads, or lack of roads.

With improvement of the highways, which will undoubtedly take place before many years, at least between the larger cities, there will be an increased field for motor vehicles, because the level, open character of the country offers opportunity for fast travel, and the long distances from place to place will make the automobile a valuable time saver.

Just now the demand is mainly for a city car, few people attempting outside trips of any distance, but automobile dealers are trying to stimulate the use of machines in the country at large, despite bad roads, and have been experimenting with various types of cars built to overcome existing difficulties. A specially designed car appears necessary for successful use on Argentine country highways, the most essential requirement in which is a specially high clearance, one of as much as 30 centimeters (1 centimeter equals 0.3937 inch) against the prevailing 20 or less for city use.

United States automobiles offered for sale in Argentina have been from the first and still are confined to a few cheap makes. Testimony is that the earlier sales were not satisfactory, and that in consequence United States cars are much discredited. This condition, along with the fact that the demand here is for a high-class and not a cheap automobile, makes the sale of the North American machines which are offered uphill work. Whether high-grade cars from United States factories could be sold here depends on overcoming the existing prejudice against the North American makes and in meeting the seriously competitive prices of the best European products. Dealers handling such machines from the United States as are now offered in Argentina say the latter is impossible.

In order to gain an idea of what can be sold in Argentina, and at what price, it is essential to understand certain fundamental facts about the automobile buying public and its requirements. Buenos Aires is in an almost overshadowing sense the prin-



capital market for cars. Not only are a large majority of the automobiles of the country owned there, but even those used in other cities are mostly purchased in the capital. There is a large number of persons in Buenos Aires able to own automobiles, and the reason that more are not in service is doubtless due to the limitation put on their use by the poor condition of the roads outside the city limits.

The wealth of Argentina is in its estancias, or farms, the owners of which commonly live much or most of the time in Buenos Aires. These men have money to spend and are ready to spend it with an open hand for personal comfort and luxuries. Their number is augmented by business and professional men of the metropolis, who have shared in the country's prosperity. This does not make up a class of buyers which is looking for a cheap car, and there are few of that sort to be seen in the streets of Buenos Aires. On the contrary, the most expensive machines are the kind in use, the average running even higher than in a city like New York.

Buenos Aires, with 1,250,000 inhabitants, is the only large city in the country. Rosario, next in size, has less than 200,000 inhabitants. Moreover, most of the wealth centers in Buenos Aires, and it is there that the well-to-do estancia owners generally have their city homes.

The estimate of one automobile dealer gives a total of 3,000 cars in use in Argentina, of which he assigns 2,000 to Buenos Aires. The total estimate corresponds fairly well with other data as to number of machines, but the proportion assigned to the capital is probably too low. Seventy-five per cent., or more, would possibly be closer. The Argentine import figures for the five years from 1904 to 1908, inclusive, show a total of 2,339 cars. For the last of these years the number was 495. Following are the statistics for the five-year period, and the year 1908 by itself, classified according to countries:

Country	1904-1908	1908
France .....	1,468	305
Germany .....	311	37
United States .....	195	44
United Kingdom .....	165	51
Italy .....	137	43
Belgium .....	26	5
Spain .....	15	4
Switzerland .....	9	4
Uruguay .....	9	1
Austria-Hungary .....	2	—
Bolivia .....	1	1
Holland .....	1	—
Total .....	2,339	495

These figures must not be taken as representing exactly the place of manufacture, as they include cars purchased abroad and brought into the country by their owners. In such instances the country from which they were shipped was not necessarily the country of manufacture.

France has a long lead in supplying the Argentine market. It is to be noted that the United States led Great Britain in num-

ber of machines for the five-year period, but fell behind her in the last year. Moreover, imports from the United States, although considerable in number, were comparatively low in value, because they were cheap cars. On the 165 English machines the duty, which is 10 per cent. ad valorem, was \$221,918, Argentine gold, as against only \$135,304 on the 195 North American automobiles. It is more difficult to appraise the value of a high-priced than of a cheap car, and in consequence undervaluation of the former is easier. For this reason it is likely that the real value of the English automobiles imported exceeded that of the American machines even more than the statistics indicate.

The type of car most in demand is the landaulet, or the combination landaulet and touring car, with a top which may be raised or lowered at will.

There are said to be agencies for 32 makes of automobiles in Argentina. Half a dozen United States firms are represented in this number, but there is only one agency which is doing anything at present, and even this managed to sell scarcely more than 50 cars last year.

Two machines are handled by this agency, one of which sells in the United States for as low as \$500 and the other for about \$1,000. The selling prices here are twice those figures, and it is stated that a cheap car cannot be handled at a profit on any other basis.

On the expensive European cars a 50 per cent. addition to the selling price in the country of manufacture seems to be the average. This provides for the cost of shipping, a 10 per cent. ad valorem custom duty, an additional 2 per cent. for national war debt, and the extra expense attached to selling in Buenos Aires, a city in which rents are high and cost of living generally half as high again as in the United States.

The most prominent English company in the Argentine market, the Daimler, charges \$4,300 American currency for the 5-passenger "Brighton landaulet," which it catalogs at home for \$3,200; \$5,000 for its 5-passenger "Piccadilly phaeton," against \$3,300 home price; and \$5,700 for its "Coventry landaulet," for 5 to 7 passengers, against \$4,000 home price.

Generally speaking, high-class French and Italian landaulets and touring cars sell in Buenos Aires for \$4,000 to \$5,000, United States currency. In other words, after 50 per cent. has been added to their European price, they retail at about the same figures as similar quality American cars cost at home. This means that if cars costing \$4,000 to \$5,000 in the United States were sent to Argentina, and the 50 per cent. added to their home price, which dealers regard as necessary, they would have to sell for \$6,000 to \$7,500 against prevailing rates of \$4,000 to \$5,000 for European cars. Hence the difficulty of com-

petition unless definite superiority is demonstrated and favor secured.

It is possible that United States makers might open up a special field for themselves by being first to supply a strong, high-clearance, broad-tired wheel car, specially adapted to the rough and muddy roads of the country. Undoubtedly there is a demand by estancia owners and others for some such means of conveyance between the cities and the "camp," as the farming country of the Argentine is known. Such a machine should not be a cheap one. It would have to be of the best construction and of high power, although looks might be subordinated to utility.

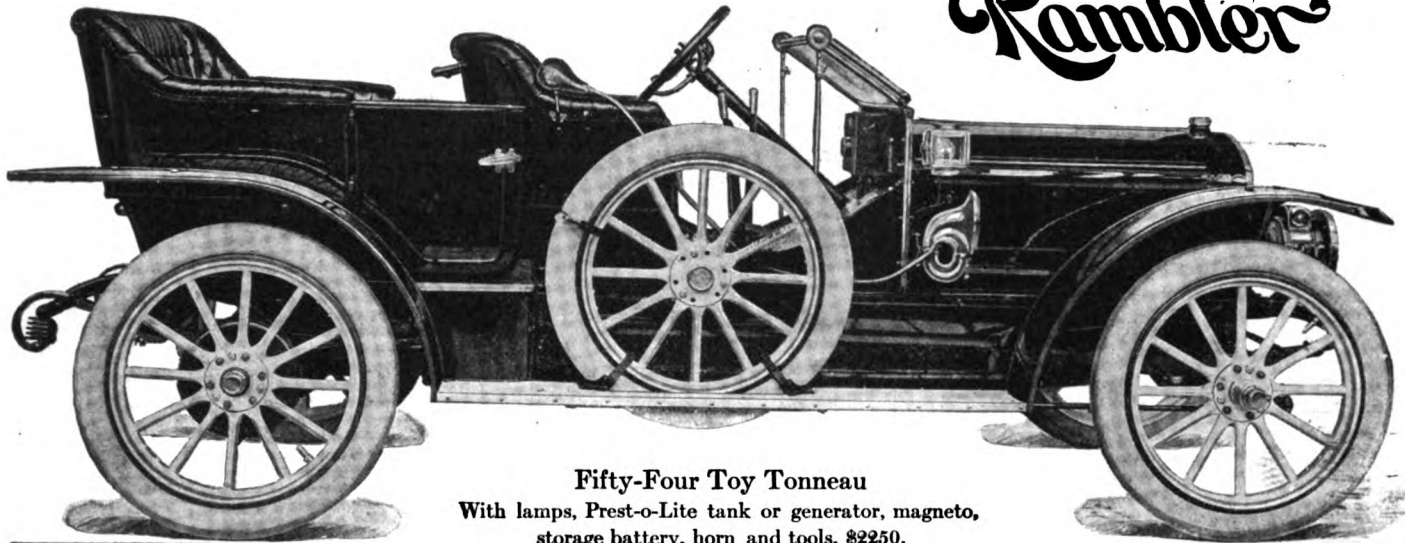
An English company has already been experimenting with a special type of car for the "camp" roads, and, according to a local newspaper, recently ran such a machine 540 miles from Bahia Blanca to Buenos Aires at an average of 20 miles an hour. The automobile in question is rated at 15 horsepower, but is said to be capable of developing 25. It has an exceptionally high clearance, the body being some 12 inches from the roadway. An extra large radiator is fitted to prevent boiling, and is fitted with a thermo-siphon and a mechanical pump for water, while all the mechanical parts of the car are inclosed in a dust-proof casing. The frames and axles are extremely strong and the car has springs to resist heavy jolts and bumps likely to be met with when motoring in the country.

Leaving Bahia Blanca in a heavy rain storm the route taken lay through Pringles, Laprida, Olivarria, Azul, Las Flores and Canuelas, to the federal capital. At times, the road disappeared completely, and the only thing left was to steer the car straight across country. Marshes were frequent. An average of six a day were met with, all of considerable size, while no fewer than eight rivers and streams had to be forded, one of which, the Arroyo Hinojo, was about a foot and a half deep. Still the car came through, and on its own power, with no greater inconvenience to the passengers than the water splashing over their baggage on the floor, due to the great height of the body of the car above ground. Occasionally the wheels sunk to their axles in the sand and mud. One serious mishap alone delayed the journey, a broken horseshoe near Azul cutting a tire to pieces, which entailed a delay of some hours. Beyond this, the only other incident of a like character was the breaking of the starting handle as the car was plowing its way through a more than usually heavy marsh.

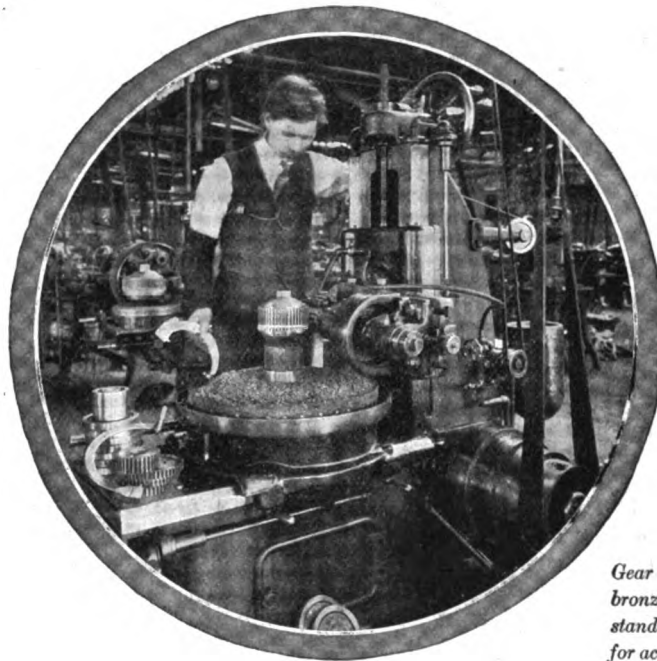
There are some motor taxicabs in Buenos Aires, but they are few in number compared with the horse-drawn public vehicles, nor does it seem likely that the latter will be superseded by them for some time. Horses are cheap in Argentina, while gasoline has to be shipped from the United States, and therefore expensive.



# Rambler



**Fifty-Four Toy Tonneau**  
With lamps, Prest-o-Lite tank or generator, magneto,  
storage battery, horn and tools, \$2250.



*Gear shaper cutting Rambler  
bronze gear. The workman  
stands ready to gauge the gear  
for accuracy when completed.*

Silence, smooth running qualities and perfect balance have been attained through the careful grinding of Rambler parts and their accurate fitting. Reciprocating parts, such as pistons, connecting rods, crank shafts and fly wheels are weighed and balanced to eliminate vibration. These points alone illustrate the superiority of the Rambler engine.

## **The Thomas B. Jeffery Company**

**Main Office and Factory, Kenosha, Wisconsin**

**Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco**

**In a Tangle Over Government Cars.**

James Schoolcraft Sherman, Vice-President of these United States, is willing to pay an automobile registration fee to the state of New York, but does not know just how to do it, because the automobile he uses is national property. However, in order to secure a New York registration, oath must be taken as to the ownership of such vehicle, hence Mr. Sherman's dilemma. The case seems to be different from any other that has yet arisen, inasmuch as the others were of army or navy officers who owned their cars. As the law reads, no one can secure a license unless he owns the automobile for which the number plate is desired. Mr. Sherman's automobile is registered in the District of Columbia, which peculiar political division has no reciprocity laws to offer an avenue of escape from the dilemma. Gen. Wood took such a fall out of S. S. Koenig, secretary of state, when the latter requested his fee that the latter now is going slow in treating with government officers. Accordingly he has registered the Vice-President's car and is now delving into the law on the subject. In the former case the secretary contended that the charge was not a tax but a fee, but the members of the diplomatic corps without any great show of diplomacy observed that the cost was \$2 in either case and managed to keep their money.

**Hezekiah's Bad Eye May Help Him.**

Hezekiah W. Pettibone, of Attica, Wyoming county, state of New York, 70 years young, will be the dean of the chauffeurs' guild in the Empire commonwealth if he gets his much desired certificate from Secretary Koenig, champion of one-eyed drivers. To be sure, Mr. Pettibone's label is somewhat against him, but he sent along his photograph, not caring to let the department form a mind's eye opinion of him from his signature. The applicant has one strong point in his favor. He says he has operated farm machinery and been an agent for the same most of the time for 40 years. Nevertheless, he still possesses all his legs, arms, fingers, toes and a cheerful smile.

He has had one weak eye almost from birth, and in consequence has worn a wind shield since childhood's happy hour. That fact, however, will only strengthen him with Mr. Koenig, who recently championed a one-eyed applicant.

**Dynamite for Silverton Pathfinder.**

According to the Silverton, Col., correspondent of the Denver Post, the county commissioners, on the quiet, have been fixing up the road between Creede and Silverton, so as to make it possible for motor vehicles. Dr. D. L. Meckling, of Denver, had the honor of being the first motorist to get through to Silverton, being greeted by dynamite, salutes, ringing bells and blowing whistles. His was also the first car to make the trip up the Rio Grande Valley and over the Continental divide. Mayor Allen of Silverton came out to extend greeting together with about all the citizens and pet animals.

**Forgery to Indulge in Automobiling.**

How far some people will go when they submit to what has appropriately been called the automobile craze, again was shown last week in Philadelphia, Pa., when John C. Cancelmo, Jr., forged a check in the name of his father, a wealthy produce merchant, cashed it at the Camden National Bank, and utilized the money in buying an automobile. He was arrested after a short "joy ride," accused of forgery and embezzlement, and held in \$1,500 bail. His father was chief prosecutor against him.

**False Registration No Crime in France.**

According to a decision handed down by the Court of Cassation, Paris, France, it is no crime in that country to use false registration or identification numbers. Ross Vincent, an Englishman, was convicted of appropriating the registration marks of Countess Duces and was sentenced to two months imprisonment and to pay \$20 damages to the countess. He appealed, secured a reversal of judgment and the court ordered the decision published five times in the Paris newspapers.

**Motoring Blamed for Yacht Club's End.**

Seemingly by some oversight no one has yet attributed the July drought to the automobile industry. Last week the Motor World told how the carriage manufacturers declare they have been obliged to mark up their prices on vehicles because of the increase in the cost of labor and materials brought about by the demand for automobiles. In the same issue, too, was printed the plaint of the city librarian of Bloomington, Ill., that his reading rooms were deserted because of the craze for motoring and film picture shows—rapid motion being involved in both cases. Now comes the wail of Adolph Mollinhauer, of New York, who found being commodore of the Comet-quot Corinthian Yacht Club of Bay Shore, Long Island, an expensive honor. He holds executions on the bankrupt organization for more than \$10,000. An auction sale of the property was attempted a few days ago, but the receipts were little in excess of \$600, and Mollinhauer had to bid in much of it at that. The collapse of the club, it is insisted, was mainly due to motoring. The demand for chauffeurs, too, is such that it is no longer possible to secure crews for craft on the Long Island bays.

**Dog Somersaults a Taximeter Cab.**

When an automobile runs over a dog, it is usually the canine which gets the worst of the argument, but in the case of a taxicab belonging to the Burns Motor Car Co., of Macon, Ga., the humble dog at least had the satisfaction of ditching the taxi, and nearly killing its occupants. The sole passenger promptly sued the company for \$5,000 damages, so that the net result of the accident may be summed up as a "yaller" dog with two broken legs, a wrecked taxicab, a severely injured chauffeur, a slightly less injured passenger, and litigation which promises to drag its way through the courts for some time to come. Eye witnesses state that the taxicab was going at top speed, struck the dog a glancing blow, skidded and crashed into the curb, turning a complete somersault.



**1911 ANNOUNCEMENT**

**Watch for it September 22nd**

**CORBIN MOTOR VEHICLE CORPORATION**

New Britain, Conn., U. S. A.  
Licensed under Selden patent.

**IF YOU ARE INTERESTED IN  
MOTORCYCLES**

**THE BICYCLING WORLD  
AND MOTORCYCLE REVIEW  
WILL INTEREST YOU**

PUBLISHED EVERY SATURDAY AT  
154 NASSAU STREET, NEW YORK

*\$2.00 Per Year*

*Specimen Copies Gratis*



## RECENT PATENTS.

965,083. Motor Vehicle. Walter Christie, New York, N. Y. Filed Jan. 26, 1910. Serial No. 540,121.

1. In a motor vehicle, the combination with a steering wheel, of a carrier therefor comprising two parts—one carrying bearings for the wheel, and the other part journaled in a bearing above the wheel to rotate about an axis at right angles to the axis of rotation of the wheel—the two parts being arranged in sliding relation with each other whereby they may move relatively in one direction but are otherwise secured together, spring means disposed between the two parts, means for imparting movements of rotation to the carrier about its axis for steering purposes, and means for imparting driving movements to the wheel.

965,642. Armor for Pneumatic Tires. Albert Henry Macbeth, Fort Wayne, Ind. Filed Dec. 30, 1908. Serial No. 469,966.

1. An armor for pneumatic tires comprising a series of separate and independent flexible armor band sections, means for securing the ends of the respective sections to the rim of the wheel, a flexible tread plate secured to each section and overlapping the adjacent section over substantially the entire width of tread surface, whereby the joints between the sections at the tread surface are protected from puncture.

965,698. Protector for Automobile Tires. Jacob S. Ehrich, Lynchburg, Va. Filed Dec. 3, 1908. Serial No. 465,870.

1. A tire protector comprising a metal ring, a substantial semi-circular in cross-section, carried and supported entirely by the tire and in contact with the tread thereof, and a ring of resilient material, U-shaped in cross-section, fitted over each edge of said metal ring and provided with a resilient strip adapted to bear against the side of the tire.

965,715. Demountable Rim for Automobiles. Charles Johnson, Buffalo, N. Y. Filed Feb. 23, 1910. Serial No. 545,492.

In a demountable rim, the combination with a wheel felly having a beveled surface at one side edge, of a reinforcing metal band adapted to fit on the felly having an inwardly extending flanged portion on one side arranged to extend into engagement with the beveled part of the felly and an outwardly extending flanged portion on the opposite side, a tire rim resting on the top of the outwardly extending flanged portion, a rim ring within the tire rim provided with an inwardly extending flange adapted to fit against the side of the felly, and a fillet at the juncture of the rim ring and its flange provided with a beveled surface arranged to fit upon the beveled surface of the inwardly extending flange of the reinforcing band, and bolts for securing the parts together in assembled position; and the heads of said bolts being elongated and having their top edges in contact with the tire rim and their inner surfaces in contact with the outwardly extending flange of the reinforcing band.

965,749. Lamp. Edwin M. Rosenbluth, Philadelphia, Pa. Filed Jan. 24, 1907. Serial No. 353,804.

1. The combination with a lamp casing having a concave spherical reflector at the rear thereof; of means arranged to produce a second flame on the central axis of said reflector, but nearer to said reflector

than its focal center; whereby the rays from said first flame are projected parallel with said axis, and the rays from said second flame are projected divergently with respect to said axis, and, a parabolic reflector in front of said flames, having its focal center coincident with said second flame; whereby the rays from said second flame are projected parallel with said axis, and the rays from said first flame are projected divergently with respect to said axis.

966,414. Auto Tire Container. Bernard A. Alperin, New York, N. Y., assignor to Lafayette B. Gleason, Delhi, N. Y. Filed May 5, 1909. Serial No. 493,998.

1. The combination of a drum shaped case having at one side a semi-circular lid portion hinged to the case, said lid having a flange on its peripheral portion projecting inside of the casing in engagement therewith when closed, and also having a flange portion engaging the outside of the case when closed to form a tight closure, one hinge portion of the cover being located below the edge of the engaged portion to form a tight joint.

966,445. Driving Mechanism for Tractor Tricycles. Benjamin Hourieux, Rambouillet, France. Filed Jan. 10, 1910. Serial No. 537,290.

1. In a traction vehicle, in combination, a motor, an axle, a track wheel at each end thereof, independent means for operatively connecting each wheel with said motor whereby either wheel may be actuated alone or both wheels may be actuated simultaneously, and levers operatively associated with said means for controlling the actuation thereof, said levers being positioned adjacent one another whereby the operator may simultaneously grasp the same with one hand.

966,451. Trunk. Isidore S. Kallis and Joseph Berg, New York, N. Y., assignors, by mesne assignments, to Lafayette B. Gleason, Delhi, Del. Filed May 20, 1909. Serial No. 497,343.

1. An automobile trunk formed at its edge with a notch, and a frame reinforcing the edges of the walls of the notch.

966,621. Auxiliary Spring for Automobiles. Charles L. Thomas, Canisteo, N. Y. Filed Aug. 21, 1909. Serial No. 514,044.

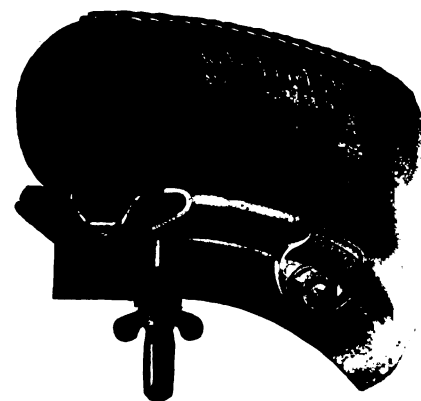
1. A hanger rigidly fastened to the leaf springs of a vehicle near the free end portion of said spring, an auxiliary upright compression spring carried by said hanger, and a lever having means of vehicle body attachment and fulcrum connection with said leaf springs, and resting upon said auxiliary spring.

966,577. Wheel Mount and Axle. George D. Munsing, Newark, N. J. Filed June 7, 1909. Serial No. 500,486.

1. In a wheel mount the combination of an axle, a yoke pivoted thereon having a central boss, a crank having a pin journaled in the boss and a pin forming a wheel axle, an arm fixed on the journal pin extending in the direction of the crank, a spring-cup supported by and universally movable on said arm, a bracket extending from the top of the yoke over said cup, a cup depending from the bracket, a spiral spring seated in said cups, a lever fixed to the lower end of the yoke and a connecting rod pivoted to the lever adapted to be connected with a similar lever on the wheel mount at the other end of the axle.

# Michelin

## DEMOUNTABLE RIM



*The Original Type*

**Simplest  
in Construction  
Lightest in Weight  
Easiest to Operate  
Absolutely Secure  
No Lugs  
nor Security Bolts**

**MICHELIN TIRE CO.  
Milltown, New Jersey**



## TO PRODUCE FOREIGN TIRE HERE

**Pennsylvanians Join Hands with Germans to Manufacture Latter's Tire—Designed for Commercial Vehicle Use.**

For the American sale of Polack tires, as made by B. Polack, Inc., of Walterhausen, Germany, a new corporation has been formed under Maine laws, in which officers of the Pennsylvania Rubber Co., of Jeanette, Pa., are prominent and which is to be known as the Polack Tire Co. The tires will be manufactured by the Pennsylvania Rubber Co. and will be made under the processes and methods used in Germany. Herbert DuPuy, president of the Pennsylvania company, is president of the new company, and H. Wilfred DuPuy is treasurer of both concerns, with Seneca G. Lewis, general manager of the Pennsylvania company, as secretary. The vice-president and general manager is A. Hauschild, who with F. Poppe, a managing director in the German company, completed the arrangements on this side of the water on behalf of B. Polack, Inc. The men named, together with C. M. DuPuy and Max Polack, constitute the board of directors. Hauschild and Poppe have returned to Germany, but the latter will return soon to remain permanently in charge of the American company. The company will have its principal office at 1741 Broadway, New York City, but has arranged to have the Pennsylvania Rubber Co.'s branches in Pittsburg, Chicago, Detroit, San Francisco and Los Angeles act as distributing points for Polack tires in their respective districts. The Polack tires are said to be used by all of the London bus companies and to be standard equipment on a great proportion of the high grade commercial vehicles made in England and on the Continent.

### Connecticut Withdraws from Union.

Discontinuance of the sales arrangement existing between the United Manufacturers

and the Connecticut Telephone & Electric Co., of Meriden, Conn., is announced by the two companies. The Connecticut Shock Absorber Co., of Meriden, a subsidiary of the Connecticut Telephone & Electric Co., also is involved in the discontinuance, which goes into effect on the first of October. After that date the Connecticut companies will handle their sales direct from Meriden, but all matters relating to purchases up to that time will be handled by the United Manufacturers at New York.

### Rider-Lewis in Receiver's Hands.

Receivership proceedings have been instituted against the Rider-Lewis Motor Car Co., of Anderson, Ind., resulting in the appointment of Thomas J. Delahunt as receiver, under \$50,000 bond. Superior Judge Austill has directed the receiver to take an inventory and appraisal of the plant and to place \$82,000 insurance on the property. The operation of the factory has been suspended pending the court's hearing of the wishes of the creditors. The officers of the company state that there is \$90,000 of unfinished material in the factory.

### Pacific Coast Maker Decides to Quit.

The Auto Vehicle Co., of Los Angeles, one of the very few concerns which undertook to build automobiles on the Pacific coast, is winding up its affairs and will quit the business. It already has sold its parts and patterns to the W. J. Burt Motor Co. and the Sam Johnson Auto Co., of Los Angeles, and so soon as the few finished cars that remain on hand are disposed of it will "shut up shop." The Auto Vehicle Co. manufactured the Tourist car, and starting in a small way eight years ago attained respectable proportions.

### Two Big Supply Houses Merged.

The Weinstock-Nichols Co., of San Francisco, Cal., has absorbed the Moore Motor Supply Co. of the same city. The Moore company was one of the oldest, if not the oldest, automobile supply houses on the Pacific coast.

## SEVENTEEN MORE SELDEN SUITS

**They Awaken Importing Trade from Fancied Security—And it is Promised that Other Suits Will Follow.**

Coupled with the announcement that "other suits will follow," indicating that its round-up is not complete, the Association of Licensed Automobile Manufacturers made known on Monday last that actions alleging infringement of the Selden patent had been brought against sixteen importers and one American manufacturer who is about to engage in the reproduction of a foreign model in this country, i. e., the Fiat Automobile Co., of Poughkeepsie, N. Y. That such proceedings would be instituted was stated by the Motor World last week.

The seventeen defendants on whom service was made and the cars they handle, are as follows: S. P. O. Automobile Co. (S. P. O.); Itala Import Co. (Itala); Albert C. Otto (Saurer trucks); Fiat Automobile Co. (Fiat); C. G. V. Import Co. (C. G. V.); Delahaye Import Co. (Delahaye); Zust Motor Co. (Zust); Benz Auto Import Co. (Benz); Hotchkiss Import Co. (Hotchkiss); Daimler Import Co. (Mercedes); Henry Ducasse & Co. (Darracq); Renault-Freres Selling Branch (Renault); Saurer Motor Trucks (Saurer trucks); Albert C. Travis (Mercedes); Healey & Company (Mercedes); Fiat Company of Poughkeepsie (American Fiat); A. T. Demarest & Co. (English Daimler); J. M. Quinby & Co., Newark, N. J. (Isotta).

All of the suits save that against Quinby & Co. were ailed in the United States Circuit Court for the Southern District of New York; that against Quinby & Co. was lodged in the United States Court for the New Jersey District.

In each case an injunction and damages are asked for. The answers are returnable October 3d next.

Several of the defendants at one time operated under the limited license granted importers by the Association of Licensed



Automobile Manufacturers, but for one reason or another they permitted the arrangement to lapse and the whole importers colony appears to have been lulled to a sense of false security or immunity, as while the A. L. A. M. was active in prosecuting American manufacturers, the importers were left undisturbed. The fact, however, that Panhard & Levassor were coupled with the Ford Motor Co. in Judge Hough's recent decision sustaining the Selden patent and pending an appeal were required to file a bond of \$16,000, indicates that the other importers may be required to do likewise.

#### Wisconsin Dealers Forming Association.

Out in Wisconsin, where a similar movement originated several years ago, the retail dealers are making another effort to form an association to promote their mutual interests. The first step in that direction was taken at a meeting held in Milwaukee on Thursday last when a temporary organization was formed with Rudolf Hokanson, of Madison, as chairman, and M. C. Moore, Milwaukee, as secretary. There was also appointed a committee on permanent organization consisting of F. J. Edwards, chairman, Milwaukee; L. F. Schoelkopf, Madison; S. C. Foster, Beloit; E. J. Foster, Waukesha; George Rall, Galesville; A. Zwiebel, Jr., Burlington; C. P. Barker, Chippewa Falls; George W. Davis, Grand Rapids; P. B. Haber, Fond du Lac; Otto Sherer, Palmyra; Arthur Gardner, Kenosha; C. H. Holway, La Crosse; Frank Gordon, Darlington; O. R. Hughes, Marshfield; J. C. Crain, Oshkosh; Thomas Jacobs, Wausau; W. H. St. John, Green Bay, and M. Hall, Manitowoc. The committee will make a canvass of the state to enlist their fellow-dealers and secure their attendance at the next meeting.

#### Why Smith Will Not Leave Kansas.

The Smith Automobile Co., of Topeka, Kan., will neither move to Grand Rapids, Mich., nor establish a branch factory in the latter city for the present, as the effort to interest Grand Rapids investors has not met with complete success. O. H. L. Wernicke and E. D. Conger, of Grand Rapids, two of the principal stockholders in the concern, express the ambition, however, for an ultimate transplantation of the factory making the Great Smith car, which has added to the glory of Kansas.

#### E-M-F. to Purchase More Real Estate.

The E-M-F Co., of Detroit, Mich., has arranged for the purchase of the property at the northwest corner of Jefferson avenue west and Campau street and adjoining the E-M-F plant at the northeast corner of Jefferson avenue west and Clark avenue. The land belongs to the Beaubien Ice & Coal Co., and its purchase will permit of a doubling of the ground area of the E-M-F factory which it immediately adjoins.

## OVERLAND PUTS RUMORS TO ROUT

**Denounces Stories of Overstock and Sales to Mail Order Houses—Clear Statement of Its Condition.**

Reports that have been circulating, particularly in the South and West, to the effect that the Willys-Overland Co. was overstocked and had been supplying cars to Sears, Roebuck & Co., the Chicago mail order house, have somewhat disturbed the serenity of even George W. Bennett, the Overland sales manager. In private converse Bennett employs the short and ugly word to characterize the report, but in an official statement he deals with it in this language:

"There is absolutely no truth in it, nor in any other of the rumors. We have sold no Overlands, except through our regular dealers in the regular channels, and at the regular discounts. We have no overstock of complete machines, and on the night of August 31st were 241 orders behind in our shipping department.

"We have joined no combinations, have participated in no merger, nor do we intend doing so. The Willys-Overland Co. will be, as it has always been, an independent organization, 98 per cent. of the capital stock being owned by its president. We own five factories, full of machinery, free and clear from all incumbrances. We are mechanically equipped to make 25,000 Overland automobiles in the season ending July 31, 1911, and financially able to purchase all the material necessary for them. We are in possession of orders, with deposits for almost that quantity of machines, and are daily receiving more orders for immediate shipment than we can possibly fill."

#### Johns-Manville Opens More Branches.

Two more branch offices, in addition to the 34 branches previously established, have been opened by the H. W. Johns-Manville Co., of New York City, which makes Non-Burn brake lining and a wide line of asbestos products. The cities which have been placed on the list are Atlanta, Ga., and Rochester, N. Y., the branch in Atlanta being located in the Empire building and in charge of W. F. Johns, while the Rochester branch, at 725 Chamber of Commerce, is in charge of H. P. Domine, formerly with the company's Buffalo branch.

#### Twombly Sells His French Rights.

The Twombly Power Co., of New York City, has sold the French patent rights for its quick removable power plant system for automobiles, to Bernard Maimon, the proprietor of *Le Matin*, the leading Paris morning newspaper. Maimon also controls the largest electric vehicle factory in

France, but has been looking for a gasoline car suitable for taximeter cab and commercial vehicle purposes and for which he might obtain the manufacturing rights. W. Irving Twombly, the inventor of the system, sails on October 1st to deliver the necessary patents, specifications and working drawings.

#### Glass Discs Must Pay 45 Per Cent. Duty.

Glass discs chiefly used for the manufacture of reflectors for automobile lamps are not entitled to free entry, whether they are rough, cut or wrought, according to a decision of the Board of United States General Appraisers at New York. The board declares them to be dutiable at 45 per cent. ad valorem, in a decision sustaining the collector of customs.

#### Canada, Too, Has Cause for Expansion.

The Canada Cycle & Motor Co., of Toronto, Ont., is building a \$100,000 addition to its automobile plant at West Toronto, in the form of a four story building, 120x90 feet. The enlargement will permit an increase of the company's output of Russell-Knight cars embodying the Knight sliding sleeve valve engine.

#### Detroit Dealers to Repeat Their Show.

Detroit again is to have its winter show, given by the Detroit Automobile Dealers' Association, and the Wayne Pavilion once more has been selected for the purpose. The show is scheduled for January 15 to 21, and the show manager is to be chosen at the next meeting of the association's directors.

#### Demotcar's Liabilities Aggregate \$173,000.

Liabilities aggregating \$173,608, of which \$124,091 is in unsecured claims and \$1,124 in unpaid wages, are listed in the report of the receiver of the Demotcar Co., of Detroit, Mich., against which a petition in bankruptcy was filed recently. The assets of the concern have not yet been valued.

#### More Tops Coming from Marshalltown.

The Marshall Auto Top Co. has been formed in Marshalltown, Iowa, for the manufacture of the goods indicated by its title, and has located at 113-115 East State street. Austin Appleby, Charles Martin and S. J. Tinker are behind the venture.

#### Three Additions to the M. A. M. Roll.

The Edison Storage Battery Co., East Orange, N. J.; the McCue Co., Hartford, Conn., and the Pfanstiehl Electrical Laboratory, North Chicago, Ill., have been elected to membership in the Motor and Accessories Manufacturers, Inc.

#### Osborn to Handle Schurmeier Sales.

Meritt I. Osborn has been appointed manager of the Schurmeier Motor Car Co., St. Paul, Minn., which recently embarked in the manufacture of motor trucks.

**BUSSES ARE COMMERCIAL CARS**

**New York's Supreme Court so Rules Despite the Fact that They Carry Passengers—State Files an Appeal.**

Although Secretary of State Koenig, in the words of Richard W. Meade, president of the Fifth Avenue Coach Co. and the New York Transportation Co., was supposed to be "heartily in favor of the coach company's effort to obtain a judicial decision, which once and for all would define exactly what a commercial vehicle is and what it is not"—as told in the Motor World of August 4th, the decision so greatly desired does not seem to have suited Mr. Koenig, for he has caused an appeal to be filed.

As will be remembered, the Fifth Avenue Coach Co. registered one of its passenger omnibuses under the commercial vehicle law, paying a registration fee of \$5; and when this car was protested, applied for a writ of mandamus, requiring Secretary Koenig to show cause why this particular vehicle should not be permitted to be operated as a commercial vehicle. This writ was not only granted by Justice Howard, but the Secretary of State was directed by the court to accept the company's application for registration of its 40 horsepower omnibuses under the low rate prescribed by the Callan law for commercial vehicles. The excess of registration money paid for the 84 other buses of the company, which the secretary's office has held pending the judicial decision, has been ordered returned to the company. At the request of Secretary Koenig, however, Attorney-General O'Malley has filed an appeal to the Appellate Division of the Supreme Court, Third Department, and pending the outcome of this appeal matters between the Fifth Avenue Coach Co. and Secretary's Koenig's office will remain in statu quo.

**New Company Takes Kirkham Motors.**

The Kirkham Motor Co., Bath, N. Y., which several months ago was acquired by interests representing the B. C. K. Motor Car Co. of York, Pa., is to be taken over by a new corporation, the Bath Motor Mfg. Co., which has been organized for the purpose and which will continue the manufacture of gas engines. The new concern, which is capitalized at \$300,000, has been incorporated under the laws of New Jersey and its control will rest with the B. C. K. people, its officers being: President, S. E. Baily, of the York Carriage Co., York, Pa.; vice-president, James A. Kline, of the B. C. K. Motor Car Co., York, Pa.; secretary, J. C. Schuette, of S. E. Baily & Co., Lancaster, Pa.; treasurer, George W. Ryan, of the B. C. K. Motor Car Co., York.

These officers and P. E. Wufflein of Trenton, N. J., are the directors of the concern.

**Detroit to Build Cars in California.**

"Detroit influence" has made itself felt in San Diego, Cal., where C. W. Taylor, a former Detroit, has been instrumental in organizing the Southwestern Motor Car Co., which proposes to build a car of "entirely new design" which will be styled the "Southwest Special." W. H. Hunt, of the Hunt Automobile Co., is interested with Taylor in the venture, for which quarters have been leased in San Diego at Eighth and F streets. The plans include the establishment of several branch stores, one of them at El Paso, Tex., with a view to bidding for Mexican trade.

**Hudson Brings Out a Larger Model.**

In addition to its well known 20 horsepower, \$1,000 car, the Hudson Motor Car Co., Detroit, Mich., will produce a 33 horsepower model which with touring body will list at \$1,250 and with torpedo body at \$1,350. The new comer has 114-inch wheel base, 34 inch wheels with quick detachable rims and an Alumaloid metal body.

**Wallerich Goes Back to Overland Staff.**

Carl Wallerich, formerly connected with the Overland company at Indianapolis, and later sales manager for the Haynes Automobile Co., of Kokomo, Ind., has again joined the Overland selling staff. He has been appointed special agent with headquarters at Toledo, Ohio.

**Iowa Top Factory Moving to Indiana.**

The Gates-Osborne Mfg. Co., of Marshalltown, Ia., making automobile tops, is to be moved to Indianapolis, Ind., by Frank E. Gates, who recently bought out his partner, L. M. Osborn. It will occupy quarters on Senate avenue and will employ 150 operatives.

**To Manufacture Carburettors in Rome.**

The Stevens Mfg. Co., which recently was organized in Rome, N. Y., with \$50,000 capital, has leased the top floor of Noonan's Garage in that city and is equipping it for the manufacture of carburettors and other automobile accessories.

**Hudson Now Million Dollar Company.**

The Hudson Motor Car Co., of Detroit, Mich., has increased its capital stock from \$100,000 to \$1,000,000. The increase is to result in a stock dividend to the present holders of the shares, although \$100,000 of the new issue will remain in the treasury.

**E-M-F Bent on Export Expansion.**

W. H. Lalley, foreign representative of the E-M-F Co., has departed for "the other side," intent on widening the company's export field. He will visit both Great Britain and the Continent.

**BUICK HAS NEW GENERAL MANAGER**

**Charles W. Nash Takes Entire Control of Its Affairs—"Wizard" Durant Will "Build Up" General Motors.**

Apparently the terms dictated by the bankers who made the recent loan of \$2,500,000 to the Buick Motor Co. and thus tided over its difficulties reached even further than first reports indicated. In addition to obtaining 24 per cent. for the use of the money and insisting that retrenchment shall prevail, it is said that they required that W. C. Durant, the one-time "wizard" and near-Napoleon of the industry, shall have very much less to do with Buick affairs. At any rate it is announced that Charles W. Nash has assumed the general management of the Buick company and will have full control of the plant. Mr. Nash was vice-president and general superintendent of the Durant-Dort Carriage Co., from which Durant originally came.

Mr. Durant, according to the same announcement, "will remain general manager of the General Motors Co.—the holding company—and continue to build it up with all of the energy for which he is noted," which means that he will have more time to boost the price of its shares, a task which led him into hot water and which since the troubles of the Buick company became public property has been rendered even more difficult. The merchandize creditors of the company held another meeting on Thursday last, at which, it is said, those who opposed the acceptance of the Series B notes were pacified and satisfactory arrangements made, which, however, will not be wholly consummated until the signatures of two men are obtained.

**Texas Manufacturer Forced to the Wall.**

Involuntary bankruptcy proceedings have been brought against the Southern Motor Car Co., of Houston, Tex., by three of its creditors in Dallas. The company has been making assembled cars and has appealed for Southern patronage on the ground of being one of the pioneer automobile manufacturing concerns in the South. The petitioners' claims aggregate \$4,600.

**Willys-Overland to Produce \$775 Model.**

The Willys-Overland Co., Toledo, Ohio, is adding a \$775 car to its line. It will employ a four cylinder, 20 horsepower engine and is termed "a wonder" by those who have been privileged to see it.

**Lavigne Building Three-Story Addition.**

The Lavigne Manufacturing Co., of Detroit, Mich., is building an addition to its factory. The addition is 100 feet square and three stories high.

**THE WEEK'S INCORPORATIONS.**

Detroit, Mich.—Detroit Garage Co., under Michigan laws, with \$75,000 capital.

Paterson, N. J.—Center Garage Co., under New Jersey laws, with \$25,000 capital.

Cleveland, Ohio—Auto Supply Co., under Ohio laws, with \$10,000 capital. Corporators—B. L. Wilson and others.

Lansing, Mich.—Alden Sampson Mfg. Co., a Massachusetts corporation with \$300,000 capital; to do business in Michigan.

Uniontown, Pa.—Automobile Rental Co., under Pennsylvania laws, with \$5,000 capital. Corporators—C. W. Johnson and others.

Des Moines, Ia.—Moyer Automobile Co., under Iowa laws, with \$5,000 capital; to operate a garage. Corporators—W. E. Moyer, E. B. Moyer.

Cleveland, Ohio—Auto Supply Mfg. Co., under Ohio laws, with \$10,000 capital. Corporators—F. T., C. B., B. L. Wilson, O. P. McStrath, W. McStrath.

Vicksburg, Warren Co., Miss.—Hill City Garage Co., under Mississippi laws, with \$10,000 capital. Corporators—John Hudge, O. F. Parsons and others.

Boston, Mass.—Boston Auto Coach Co., under Massachusetts laws, with \$50,000 capital; to deal in automobiles. Corporators—T. K. Ruth and others.

Boston, Mass.—National Motor Car Co., under Massachusetts laws, with \$25,000 capital; to deal in automobiles. Corporators—F. A. Wyman and others.

Kansas City, Mo.—Case Auto Supply Co., under Missouri laws, with \$5,000 capital. Corporators—R. H. Alexander, Belle S. Alexander, Christine Alexander.

Peapack, N. J.—Somerset Garage Co., under New Jersey laws, with \$25,000 capital; to deal in automobiles. Corporators—W. C. Horton, J. Auble, W. Simpson.

Chicago, Ill.—Furner Motor Car Co., under Illinois laws, with \$10,000 capital; to manufacture automobiles. Corporators—Edward Furner, A. W. Eschert, W. J. Bell.

Castleton-on-Hudson, N. Y.—Belmont Motor Vehicle Co., under New York laws, with \$25,000 capital. Corporators—H. H. G. Ingalls, Arthur Cheney, O. D. Woodford.

Newark, N. J.—A. Hoch Rubber Co., under New Jersey laws, with \$100,000 capital; to manufacture rubber goods. Corporators—A. Hoch, C. M. Adair, E. S. Robinson.

Newark, N. J.—Auto Delivery Truck Co., under New Jersey laws, with \$50,000 capital; to do general garage and repair business. Corporators—N. Davidson, I. Rosenbaum and others.

St. Louis, Mo.—Frank Goeke Motor Car Co., under Missouri laws, with \$5,000 capital; to deal in automobiles. Corporators—

Frank Goeke, J. L. Gutweiler, Katie Gutweiler.

Portland, Me.—Polack Type Co., under Maine laws, with \$500,000 capital; to manufacture and deal in automobile tires. Corporators—I. S. Kearney, Augusta, Me., and others.

Frederick, Md.—Frederick Automobile Co., under Maryland laws, with \$50,000 capital; to deal in automobiles and accessories. Corporators—Dr. F. B. Smith and others.

Chicago, Ill.—Saurer Motor Trucks, a New Jersey corporation, admitted to do business in Illinois, with a capital of \$1,000,000. Chicago incorporator—W. M. Thompson.

Paterson, N. J.—Chester Garage Co., under New Jersey laws, with \$25,000 capital; to deal in motor vehicles. Corporators—J. Martin, W. A. Jacobson, M. Price, all of Paterson.

Chicago, Ill.—Moon Motor Car Co., under Illinois laws, with \$5,000 capital, to deal in automobiles and accessories. Corporators—C. M. Garrett, B. W. Rosenstone, Harry J. Meyerson.

Mount Vernon, N. Y.—Prospect Auto & Garage Co., under New York laws, with \$2,000 capital; to conduct a garage. Corporators—George A. Conlon, Charles Davis, Eugene Levy.

New York City, N. Y.—C. R. Teaboldt & Co., under New York laws, with \$50,000 capital; to manufacture and deal in vehicles. Corporators—Emerson Brooks, C. R. Teaboldt, Geo. F. Aitken.

Dayton, O.—Dayton Electromobile Co., under Ohio laws, with \$250,000 capital; to manufacture electric vehicles. Corporators—John L. Baker, H. B. Brentlinger, George L. Baker, Charles W. Dale.

Toledo, Ohio—Toledo Taxicab Co., under Ohio laws, with \$10,000 capital; to operate taxicabs and a garage. Corporators—C. C. Waitmore, A. H. Merrill, Geo. C. Craig, A. H. Campbell, K. E. Vahey.

Yonkers, N. Y.—Lowa's Garage, under New York laws, with \$5,000 capital; to deal in automobiles, motorcycles and accessories. Corporators—Wm. Lowa, Arthur Giessner, Chas. W. Lowa, all of Yonkers, N. Y.

New York City, N. Y.—Benz Automobile Co., under New York laws, with \$100,000 capital; to deal in automobiles and accessories. Corporators—D. Weingarten, O. Weingarten, J. Froelich, all of New York City.

Lewiston, Me.—Main Supply & Garage Co., under Maine laws, with \$200,000 capital; to manufacture and deal in agricultural implements, vehicles, automobiles, etc. Corporators—A. Cailler, H. P. Bevhard.

Trenton, N. J.—Bath Motor Mfg. Co., under New Jersey laws, with \$300,000 capital; to manufacture gasoline motors. Cor-

porators—Peter E. Wurfflein, Theodore G. Kitchin, Leroy W. Shelton, all of Trenton, N. J.

Chicago, Ill.—Edison-Beach Car Co., under Illinois laws, with \$5,000 capital; to manufacture electric batteries and other electric appliances. Corporators—W. W. Wheatley, L. W. Wheatley, William S. Gore.

Setauket, N. Y.—Overland Sales Co., under New York laws, with \$100,000 capital; to deal in automobiles and other vehicles. Corporators—C. T. Silver, Eugene Widman, John A. Schaefer, James K. Alexander.

St. Louis, Mo.—Southern Auto & Machinery Co., under Missouri laws, with \$7,500 capital, fully paid in; to manufacture and deal in automobiles. Corporators—Emil Hitz, Herman Miller, Wm. Wehrenbrecht.

Dover, Del.—Walk Auto Tire Co., under Delaware laws, with \$125,000 capital; to manufacture and deal in automobile tires. Corporators—F. R. Hansell, Philadelphia, G. H. B. Martin and S. C. Seymour, Camden, N. J.

Cambridge, Mass.—American Storage Battery Co., under Massachusetts laws, with \$50,000 capital; to manufacture and deal in storage batteries. Corporators—F. F. Sullivan, Auburndale; C. M. Ludden, Waltham.

Brooklyn, N. Y.—Mac Auto Co., under New York laws, with \$10,000 capital; to conduct a general garage business. Corporators—Edward A. McShane, Mary A. McShane, of New York City, and Thomas McCauley, of Brooklyn.

Columbus, Ohio—Columbus Taxicab & Auto Livery Co., under Ohio laws, with \$10,000 capital; to operate a garage and taxicab service. Corporators—Russell Floyd, R. H. Kissinger, R. P. Wallace, M. R. Edwards, Roston Medbery.

Richmond, Va.—Standard Auto Equipment Co., under Virginia laws, with maximum capital of \$10,000, minimum \$3,000; to conduct a general automobile and carriage service. Corporators—B. C. Pattee, George A. Perry, C. Ridgeway Moore.

**Increases of Capital.**

Lansing, Mich.—New Way Motor Co. increases capital from \$100,000 to \$350,000.

Hartford, Conn.—R. D. & C. O. Britton Co. increases capital from \$40,000 to \$50,000.

Connersville, Ind.—Lexington Motor Car Co. increases capital from \$50,000 to \$100,000.

Joliet, Ill.—Vanguard Mfg. Co., manufacturers of wind shields, increases capital from \$25,000 to \$50,000.

Chicago, Ill.—Premier Motor Car Co. changes name to Fort Dearborn Motor Co. and increases capital from \$12,000 to \$35,000.

## IN THE RETAIL WORLD.

The Texarkana Garage has commenced business in Texarkana, Tex. Clarence Grimes is the manager.

W. S. Grady has opened salesrooms at the corner of Bridge and Paige streets, Lowell, Mass. He handles the Regal car.

J. A. Zeman, a garage owner of Davenport, Ia., has established a branch garage in Rock Island, Ill. The shop is located on Second avenue.

A branch of the Studebaker Bros. Co., of California, has been opened in Los Angeles, at 1242-44 South Flower street. L. J. Ollier is in charge.

The Alquest Co. is the style of a new concern which has opened a garage and repair shop in Phoenix, Ariz. The shop is located on South Mill avenue.

Frank E. Moore is building a garage on South Main street, Los Angeles, Cal. The structure will be 46 x 100 feet, of pressed brick, with full plate glass front.

The Archey-Atkins Co., of Indianapolis, Ind., has opened new quarters at 425 North Meridian street. It is handling Pierce-Arrow gasoline cars, and Woods electrics.

At a cost of \$200,000 a four-story garage is being built at 1401-1409 Locust street, Philadelphia, Pa. George C. Boldt, proprietor of the Bellevue-Stratford hotel, is the owner.

J. M. Rauch, formerly of the Auto Sales Co., Cleveland, Ohio, has organized the Hupp Motor Sales Co., with headquarters at 1206 Huron road. As the name indicates, Hupmobiles will be featured.

Under the style the South Florida Motor Car Co., C. F. Irsch has opened a garage and salesroom at 312-314 Washington street, Tampa, Fla. He has the agencies for the Jackson and Empire cars.

Stoddard-Dayton cars hereafter will be represented in Trenton, N. J., by Norman F. Druck, formerly proprietor of the Trenton Auto Garage. He has opened salesrooms at 237 North Broad street.

The Engineer Equipment Co. is the style of a new firm which has opened a garage in East Wheeling, W. Va. The building is 120 x 60 feet, one story high, and stands at the corner of 18th and Eoff streets.

The Victoria Motor Car Co. is the style of a concern which just has opened up at Victoria, Tex. T. L. Stern and L. W. Daniel are the responsible men. They will sell Oldsmobiles and Oakland cars.

Charles L. Rodgers, formerly with the Inter-State agency in Brattleboro, Vt., has opened a garage under his own name on Wall street. He will confine himself strictly to renting, storing and repair work.

Under the presidency of M. J. Caton, a new automobile company has been formed in Pittsburg, Pa., to handle Owen and Haynes cars. It is styled the National Automobile Co., and is capitalized at \$100,000.

F. R. Bausch, of Allentown, Pa., has purchased the interest of the Brewster Bros. in the Lehigh Auto Tire Co., 711 Linden street, and will conduct the business in his own name. Brewster Bros. have established a garage and repair shop in Lansford, Pa.

The Essex Automobile Co., of Lynn, Mass., has entered Boston and established a branch in the latter city at 174 Columbus avenue. H. M. Doane is in charge of the Boston office, where he will exploit Warren-Detroit cars.

R. Meyer, John Day, Frank Goold and Fred Cook, of Lancaster, Wis., have formed a partnership under the title the Goold Auto Co., with headquarters in their home town. They will represent Oakland, White and Buick cars.

Stephen D. Peirce, of New Bedford, Mass., has opened a salesroom in his home town, where he will display Pope-Hartford, Peerless and Hudson cars. He formerly was salesman for the Waite Auto Supply Co., Providence, R. I.

On the petition of Jarvis W. Matthews and Nelson F. Hunt, of Bridgeport, Conn., a receiver has been appointed to wind up the affairs of the Matthews Garage Co., of 157 John street. The petitioners hold ten shares in the company.

The Speedwell Motor Car Co. has been organized in Portland, Ore., by C. A. Nation and Dr. C. B. Brown. The Speedwell car formerly was handled in Portland by the Thompson Motor Car Co., but the latter has relinquished the agency.

B. C. Kennedy has obtained the representation for the Lexington car in San Francisco, Cal., and formed a company under the style the Lexington Automobile Agency. Temporary headquarters have been opened at Van Ness and Sutter avenues.

Anthony M. Haller, a machinist connected with the Wheeling (W. Va.) Mould & Foundry Co., has opened a machine and repair shop at the corner of North Broadway and Zane avenue. He expects to do a general garage business and to deal in used cars.

An involuntary petition in bankruptcy has been filed against the Rock City Auto Co., of Nashville, Tenn. The Excelsior Supply Co., of Chicago, and the Star Rubber Co., of Akron, Ohio, are the chief creditors, with claims of \$228 and \$460 respectively.

Work is well under way at 915-921 Boylston street, Back Bay, Boston, Mass., where the new garage and salesrooms of the Thomas Motor Car Co. will be located. The structure, when finished, will be 112 x 50 feet, four stories high, and will cost about \$75,000.

F. M. Hubbell, Son & Co., of Des Moines, Ia., have purchased ground at the corner

of 10th and Walnut streets, and will erect thereon a monster automobile building. Four companies already have arranged for quarters in the building, which will cover the entire block.

The Deeds & Hirsig Mfg. Co., of Nashville, Tenn., has purchased the entire business of the Howard-Cregor Co., former agents for the Chalmers car, to which Hudson and Hupmobiles will be added. R. E. Howard will remain as manager of the new concern.

Edward Knight and William Eagen, formerly connected with the Central Auto Garage, Pittsfield, Mass., have severed their relations with this company and opened a garage of their own on Center street in that city. They will do business under the firm name of Knight & Eagen.

A new garage is under course of construction in Beloit, Wis., near the Hotel Hilton, in which James Menhall, the owner, will display the Hudson line. Associated with him in the venture will be Harry Vale, formerly manager of the Vale Garage. The latter has been sold to Samuel C. Foster.

F. J. Long, L. Carter and Charles Henderson are the incorporators of a new concern, the Henderson Motor Co., of Atlanta, Ga. They will act as distributors for the Westcott and Cole line of cars in Virginia, North and South Carolina, Georgia, Florida and Alabama. F. J. Long was president of the Olds-Oakland Co.

## Recent Losses by Fire.

Akron, Ohio—Union Garage Co., totally destroyed. Loss, \$4,500.

West, Texas—E. B. Reed; garage and two automobiles. Loss, \$7,000.

Chicago, Ill.—Majestic Garage, 5035 Cottage Grove avenue; loss, \$20,000.

Sea Cliff, N. Y.—C. Berner; automobile destroyed in garage. Loss, \$7,000.

Sacramento, Cal.—Ralph T. Jones, suburb St John; machine shop, garage, etc. Loss, \$5,000.

Philadelphia, Pa.—William Scargle & Son, 430 Rising Sun Lane; one-story garage. Loss, \$4,500.

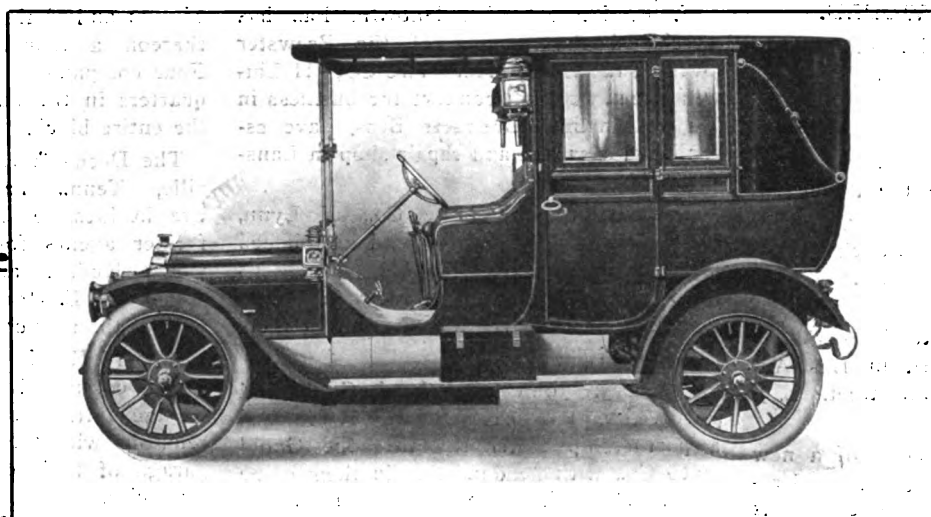
Montclair, N. J.—Manning & Mullins, 98 Grove street; garage damaged, three automobiles burned. Loss, \$10,300.

Rochester, N. Y.—George B. Scrymgeour, 309 Kenwood avenue; garage and contents destroyed. Loss, \$3,500, partly insured.

Boston, Mass.—Park Square Motor Mart, Tennyson street; contents of garage burned; building damaged. Loss, \$2,000.

Albion, N. Y.—Ira Luther & W. D. Porter, Main street; automobile and piano salesroom. Loss to stock and fixtures, \$2,000.

Cohoes, N. Y.—Thomas Kennedy & Sons, Remsen street; garage and nine automobiles totally destroyed. Loss, \$32,000; partly insured.



## The Arbiters of Elegance

**W**HAT the White Limousines are in their class, the White Landulets are in theirs—the arbiters of elegance—the models—the patterns for correctness of style. The cars in which the subtle suggestion of graceful curves, the ensemble of harmonious lines, satisfies every sense of proportion.

The careful construction evident even in the most obscure details of these cars, makes them ideal town cars for practically all seasons of the year. Again, as the limousine, its size is greatly in its favor—not too large nor too small—massive and substantial-looking, yet not unwieldy. Because of its size it is easier on tires, and threads its way in and out among the larger vehicles of the crowded city, avoiding many of the delays of the more cumbersome cars.

It is convenient to enter or leave—in fact, satisfactory for shopping, theater, calling and the score of trips for which the city dweller needs a car. Richest leathers and handsomest broadcloths, cords, tapes, and every other detail, are of the kind found only in constructions as conscientious as the White. There can be no finer example of efficiency than the White Gasoline Landulet—larger cars may be built, but none better.

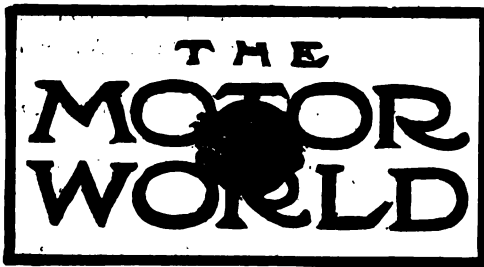
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# THE WHITE COMPANY

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#### Mr. O'Malley and His Decision.

It is not often that we are obliged to disagree with the learned counselor of the American Automobile Association, but we do not share his view that it was unfair to accept Attorney-General O'Malley's explanation of his opinion respecting reciprocity as a reversal of himself.

The Secretary of State himself clearly was of the mind that the term "like exemption and privileges" in the New York law means what it says, for the point was raised when he asked the Attorney-General whether it empowered him to issue limited licenses to non-residents of states granting exemption for limited periods only. Mr. O'Malley replied in the negative and added that so much of the New York law as relates to registration of vehicles "shall not apply to such vehicles as are owned by non-residents who have complied with the law" of their own states and who conspicuously display the registration numbers of their states.

If the Attorney-General had stopped at that point there would have been no cause for misinterpretation or for Mr. Terry's defense of him. But Mr. O'Malley took pains to add that the words "like exemption and privileges" "refer directly to the exemption from registration," and that "it is only granted to residents of other states and governments which grant the same to our residents." The alleged misinterpretation is ample proof that very many minds comprehended that "the same" meant "like exemption" and that exemption from registration for one week or two bears no likeness to the unlimited exemption granted by New York state. The belief that the O'Malley opinion implied that New York did not propose to give one dollar's worth of reciprocity in exchange for five cents worth, to use a homely simile, was, therefore, by no means unjustified. Mr. Terry to the contrary notwithstanding, and the explanation or diagram of his opinion, which Mr. O'Malley subsequently issued, was very necessary, indeed.

Although they will not quibble over the attitude and generous exchange given by New York, there are those who regret that Mr. O'Malley did not mean what he was supposed to have meant and which seemed to be a first and effective step toward breaking down the miserable and un-republican practice of restricting freedom of travel between the states of one nation.

#### Possibilities of the Taxicab Chassis.

It now has come to be considered as axiomatic that such discrepancies exist between the requirements of vehicles intended for purely business purposes and those designed for pleasure use that it is unsafe to utilize the specifications of the lighter machines even for the lightest of trucks. Indeed, the only instance in which it is commonly recognized that the demands of goods and passenger hauling vehicles are practically identical is in the case of the omnibus or sightseeing car. Such being the case it is somewhat surprising that manufacturers have not been more prompt to see in the typical taxicab chassis the very elements that are needed for city and suburban delivery work.

The average public service cab is one of the best and most suitable types of motor vehicle yet produced for a specific purpose, and one of the most appropriate to the conditions under which it is made to serve. In strength and stability, low center of

gravity and wide steering lock, compactness and simplicity of control, its practical efficiency is high as compared with that of other types of motor vehicle.

For all practical purposes these are just the requirements of the machine intended for delivery service. It is true that in most cases light and bulky loads are carried, that the market for vehicles of this sort is in such a state that it is difficult to get anything better than a very low price at retail and that operating conditions are very different from those under which the average taxicab is worked, particularly with reference to the lack of expert inspection and maintenance on a wholesale plan. At the same time, it would appear that these very circumstances have led astray more than one ambitious manufacturer who has invaded the delivery field. In endeavoring to meet the market idea in the matter of cost, the builder has, perhaps, restricted himself too closely and left insufficient leeway to develop just the sort of vehicle he would require for himself were he in the operator's position.

To advance for delivery service a cab chassis, unchanged save in the matter of body, naturally would involve considerable expense in educating the market. At the same time the results should be exceedingly satisfactory because of the decreased maintenance costs incident to the operation of high grade vehicles. Incidentally, the manufacturer of a chassis produced for the double purpose of cab and delivery service would reap the benefit of a considerably increased output, which should go a long way toward compensating for the high selling cost encountered in distributing the delivery machines.

#### Closed Fronts Designed or Extemporized.

That the great and growing industry that takes its livelihood from the refitting of used cars never lacks occupation, a perusal of its advertising or a glance into its well-filled shops serves to show. But that it never before has had so great an opportunity thrust upon it as at the present time and perhaps never again will have, develops upon a moment's consideration of the present trend in body construction. The simple lines of the new closed front bodies which are becoming so popular tempt the owner of a car that has seen considerable service either to buy a new one or to have the old machine reconstructed. And never were the necessary changes more simply or

less expensively made in bringing about the desired effect.

Already the service departments of the better established branches and agencies are busy building new bodies and rebuilding old ones to conform to the new style, while it is safe to say that the establishments that thrive by the rejuvenation of second-hand machines are not far behind in taking up the plan. The thing is done so simply and inexpensively, and the change in the appearance of the standard touring body when the front doors are added is so radical, that there can be small doubt as to the probability that such reconstructed bodies will become exceedingly numerous within a relatively short time.

Such reflection develops a point for the automobile manufacturer who himself is contemplating the building of or already is marketing a closed front type of car. Because of the very simplicity of the thing, there is a temptation for him to retain his old style body, merely adding to it the new doors and modifying the dash to correspond. But as such modification is perfectly obvious, there is some chance that bodies produced by this simple process may lack the distinctiveness which ordinarily is sought in new models. On this account not a few manufacturers deem it advisable to give to the closed front types a touch or two of individuality, even if only by way of an added moulding or two or a distinctive bit of paneling.

#### The Return of a Boomerang.

It is quite evident that the Republican state convention of New Jersey, which selected its gubernatorial candidate on Tuesday last was made up of an unappreciative lot. To think that of the more than 1,000 delegates but 53 of them realized the sterling worth of the Hon. Joseph S. Frelinghuysen—"Joe," the aspiring one, who desired so much to sit in the governor's chair when he was not seated in his insurance office in New York, and who once in a while even slept under the skies of New Jersey—"Joe," who gave New Jersey such a "model" automobile law that the state became the "highwayman" of the nation and forced other citizens of the republic to "stand and deliver" before they dared enter its gates—a law that caused the rest of the nation to rise in exasperation and swat all who live in New Jersey. After a statesman has done all of these things—

## COMING EVENTS

September 24, Narbeth, Pa.—Norristown Automobile Club's race meet.

September 24, Detroit, Mich.—Automobile races under auspices Wolverine Automobile Club.

September 26-29, St. Louis, Mo.—Third annual national good roads convention.

September 30-October 3, Minneapolis, Minn.—Automobile Club of Minneapolis third endurance run.

October 1, Springfield, Ill.—Automobile races at Illinois State Fair.

October 1, Long Island Motor Parkway, N. Y.—Motor Parkway Sweepstakes.

October 1, Peoria, Ill.—Automobile races at state fair.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, Santa Anna, Cal.—Automobile meet.

October 8, Spokane, Wash.—Automobile meet at Interstate Fair.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-12, Amarillo, Tex.—Panhandle Fair Association's annual race meet.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Chicago, Ill.—Chicago Motor Club's reliability contest.

October 15-16, Philadelphia, Pa.—Automobile Club of Philadelphia fall tour, Atlantic City and return.

October 21-22, Boston, Mass.—Boston

"American" commercial vehicle contest.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

October 28-29, New York City—Commercial vehicle test, under auspices New York American.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds.

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 5-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

after he has thrown such a superb boomerang he deserves the votes of more than 53 of his political bed-fellows. He should have received at least 54 of them. The Hon. Mr. Frelinghuysen therefore is entitled to highly distinguished commiseration. New York, however, secretly should be pleased that such an eminent insurance man will be able to spend as much time as

ever "in its midst," and should earnestly hope that the return of his boomerang has not raised such a bump on his noble brow as permanently to disfigure it. At any rate "Joe" will not have to pack his carpetbag and run for the Jersey City ferry any oftener than was his wont, and that's something that even a statesman should be thankful for.

### ALGONQUIN'S GREATER GLORY

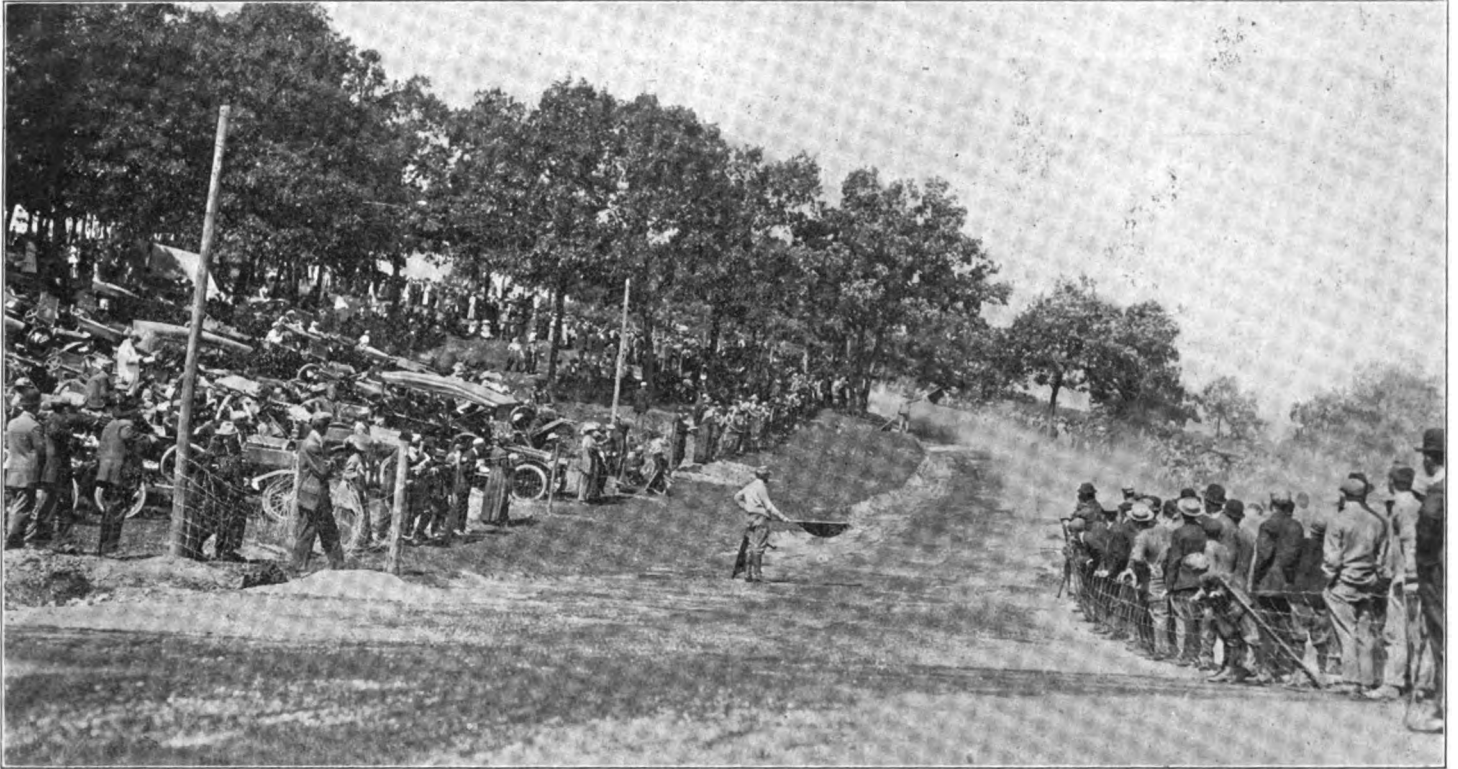
With a Made-to-Order Hill, Its Double-Barrelled Climb Gains New Fame—  
Greiner Lion of the Day.

There is one day in every year when the little town of Algonquin, Ill., thanks to the hustling Chicago Motor Club, occupies the center of the stage in the western world of motoring, and Friday, the 16th inst., was

to their yard altogether, and the latter wasted no time in accepting.

Under the new arrangement Phillips hill which previously was used for the afternoon climb was attacked in the morning, while in the afternoon the newly "made" hill, which has been christened Algonquin in honor of the town, was the scene of action. The morning climbs were from a standing start, while in the afternoon the getaway was a flying one. Although this arrangement was contrary to custom it

in a spectacular battle for premier honors fell just short of the mark and had to be content with playing second fiddle, so this details his gaining the topmost rung of the ladder of Algonquin's fame by winning the coveted Algonquin free-for-all trophy. This was not the full extent of Greiner's performance, however, for in all of his five starts he put the speedy National, which has brought him more fame than any other car he ever drove, over the line a winner each time.



GENERAL VIEW ON ALGONQUIN HILL SHOWING THE LARGE CROWD IN ATTENDANCE

that day. The occasion for this annual skyrocket rise of Algonquin to fame is the Motor Club's annual—this year it was the fifth—hill climb, and claiming further distinction in that it is a double barreled function and the only one of the sort on the motor calendar. It has had no imitators, despite the fact that it is five years old, and is the blue ribbon climb of the Middle West.

So attached have the Windy City motorists become to the pretty little agricultural community that when a clash with the authorities of a neighboring county imperiled their pet climb, they moved over bag and baggage to Algonquin, which is in another county, and did an unprecedented thing—built a hill to replace the one they were forced to abandon. In former years the club has had to stand with a leg in each county, so to speak, for Perry hill is in Dundee county and Phillips hill is in McHenry county. So when the powers that be in the former became unreasonable, the Algonquinites, who were quite friendly, quickly invited the motorists to come over

was necessitated by the unusual steepness of the new hill. Phillips hill is exactly half a mile in length, and Algonquin is about the same. The latter is a particularly hard nut to crack, as it has two turns with an average grade of 12 per cent. and a maximum of 26 per cent. The turns are not sharp and are heavily banked.

Owing to the changed conditions comparison with last year's climb is unjust. However, records on Phillips fell like chaff before a cyclone, despite the fact that the start was a standing instead of flying one, while the marks which were hung up on Algonquin are almost unbelievable. A unique feature of the latter is that it is laid out on private property and cuts through the apple orchard of a friendly farmer who came to the club's aid in their hour of trouble.

Arthur Greiner, the young Chicagoan who drove so brilliantly in the Elgin carnival, took several more steps towards the pinnacle of glory by carrying off the honors of the day in a National. As the recital of last year's contest told how Greiner

Although, as the feature event, the free-for-all naturally would be expected to produce the fastest time, this year was an exception, and it was in the class for cars between 301-450 cubic inches piston displacement, that Greiner and the National gained their greatest laurels. In the morning he thundered up the smooth and winding Phillips slant in the surprisingly fast time of 17½ seconds, cutting over 10 seconds from the record of 28 seconds made by Zengle in a Chadwick last year. In the afternoon Greiner attacked the new pimple and conquered it in 39½ seconds, the fastest time of the day. He equaled this mark again in another class, but no one else got under the forties. His total for both hills was 57½ seconds, the fastest total time of the day. Cooney, Velie, was the runner-up in this class, with a total of 1:01½, and Stickney, in a similar make of car, was third.

In keeping with its importance the free-for-all brought out a large field, nine cars starting. It also lived up to precedent by furnishing the closest and hottest compe-

tion of the day. Greiner's most formidable opponent was his former companion in amateurism, Edward Hearne, with a Benz. This was the only foreign car in the contest, and lent to it an international flavor that was missing last year. It was nip and tuck between these two young stars, and after a heart-breaking struggle Greiner got the decision by a hair. In the morning he suffered his only defeat of the day when Hearne beat him up, Phillips

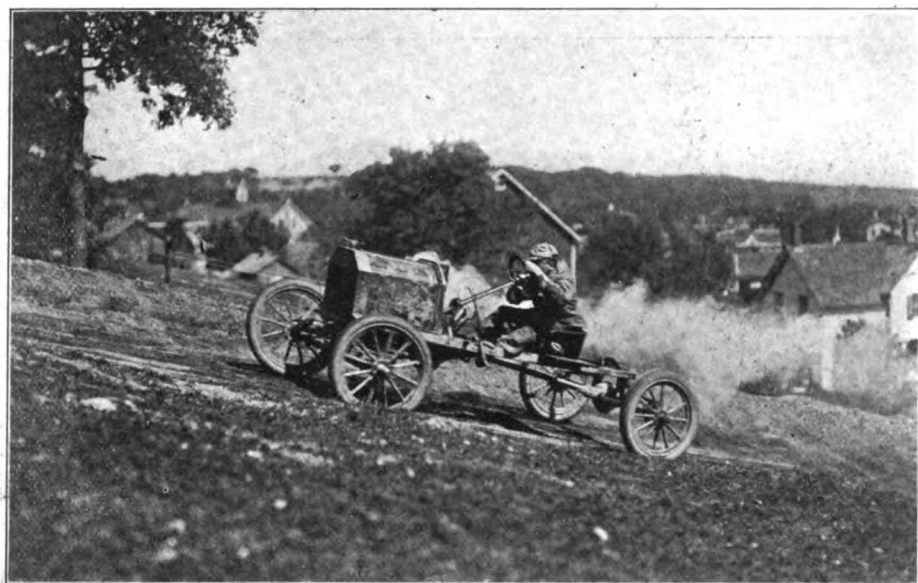
in the same class under the formula with a percentage of 8.81.

The formula is a pet hobby of the Chicago Motor Club and is a feature of its annual climb. It consists in multiplying the cylinder capacity by the total time made in the price classes and dividing the result by the weight. This calculation worked out to the advantage of some cars which had not done so well on a straight time basis, and they achieved a higher

favorable conditions than any of the others. Greiner had weighed in with the car, intending to drive it, but Monckmeier was substituted, and he being lighter than Greiner, the judges refused to make the change and threw out the driver's weight altogether. The other winners under the formula were Pendleton, Cartercar; Monsen, Marion, and Seek, National. Seek was a two times winner, for he also annexed the same class in the straight time trials.

One of the snappiest and exciting fights of the day developed between Stickney, Velie, and Monckmeier, Staver, in the 161-230 class for stock chassis. Stickney was beaten on Phillips by two-fifths of a second, and trimmed Monckmeier on Algonquin by three-fifths of a second. Stickney's total time was 1:09½, a winning margin of one-fifth of a second.

Another pair who had a bone to pick, and made the fur fly whenever they met, were Callionette, the "Man in the Moon," and Gelnaw, Falcar. The former took the cream in the 300 and under division, clocking 1:01½ against 1:02½ for Gelnaw. The latter turned the tables in the 231-300 class, beating the Missourian by 2½ seconds. This latter class drew the largest field of the day, 10 cars starting. One of the most sensational exhibitions of the day was the work of the Fords in the \$801-\$1,200 class, which they won handily. Rice skimmed up both hills in 1.21½, and Gruener in another Ford took second.

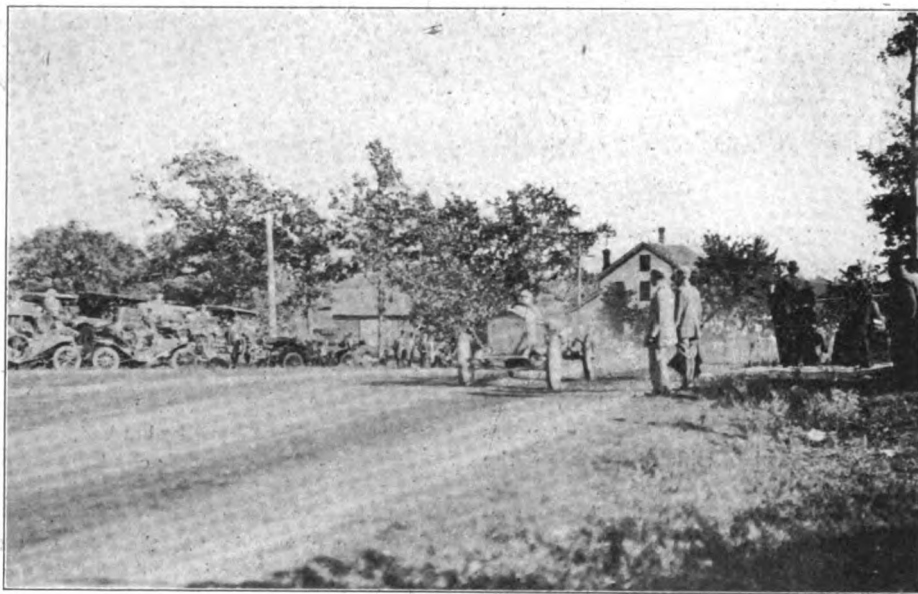


RICE (FORD) ON THE STEEP INCLINE OF THE MADE-TO-ORDER HILL

registering 17½ seconds against Greiner's 18½. Greiner "came back" in the afternoon, however, and trounced Hearne on Algonquin by a slightly greater margin than the latter had scored in the morning, thus giving the National pilot the victory by a fifth of a second. Greiner's total time was 59½ seconds, and Hearne's 59½. Cooney, Velie, was a good third, and Englebeck, Stoddard-Dayton, captured fourth place.

Greiner and Hearne were the only starters in the 451-600 class, and again gave the spectators a delectable morsel of speed. This time, however, Greiner put it on his fellow townsman in decisive fashion, scoring a total of 57½ seconds and beating Hearne by exactly four seconds. Greiner topped both hills in winning time, 18½ and 39½ seconds, respectively. In the big class for cars between 601-750 cubic inches, Greiner had a walkover, being the only starter. His combined time for the two hills was 1:00½. For the second time Greiner won without opposition when he captured the 600 and under class. He made the double climb in 59½ seconds.

By a strange coincidence walkovers were the dessert for the fastest and slowest cars. Lincoln, in the little Brush, the only competitor in its class, twice rang in first. The first time was in the straight time tests when he won the \$800 and under class by a double climb in 3:02. He scored again



GREINER (NATIONAL) WINNING THE FREE-FOR-ALL

standing under the mathematical scoring which puts a premium on weight, the lowest percentage being credited with the best performance. This honor went to a Staver driven by Monckmeier, who not only won under the formula in his class but did better than any other car competing in the handicap. His percentage was 7.41. This performance is all the more creditable in view of the car competing under more un-

Altogether both hills were climbed six times in less than a minute, Greiner doing the trick four times. Hearne and Gelnaw each did it once. This year the program was shorter, there being 18 classes against 22 last year. Among those discarded were the motor buggy and electric classes. The number of starters also shrunk, 59 cars starting against 85 in 1909.

One of the remarkable features of this

year's climb was that no car costing over \$3,000 competed, and the showing made by the medium price cars was better than that of their high priced brethren in years past. All but one of the cars competing were of the four cylinder type, sixes and twos being conspicuous by their absence.

Algonquin is situated 50 miles from Chicago and, being reached by good roads, the excellent weather served to lure thousands to the scene of battle. Hundreds of cars came from Chicago, while the surrounding territory sent its quota. Others came in teams, special trains, by bicycle and on foot. It was the gala day of the year in

Algonquin, and the farmers made the most of it. Several of them turned an honest penny by renting parking spaces and selling lunches to the hungry visitors. The three card monte men, the shell men and the other expert exponents of making the quickness of the hand deceive the eye were on hand in force to reap their share of the loose change that was in circulation. They did a thriving business.

The hills were well oiled and groomed and were in excellent condition, which accounts for the very fast times hung up. Several of the veterans of former years were missing, and their places were taken

by new recruits seeking fame and glory. Despite Greiner's annexation of the lion's share of the plums, honors were remarkably well distributed, eleven makes of car being represented in the winning column.

The Algonquin cup, the chief bone of contention, is a perpetual challenge trophy donated by the citizens of Algonquin in 1908, to be competed for annually. Greiner, after striving for the honor since it was hung up, is the third to have his name engraved on it, his predecessors being Frank Leland, Stearns, who won it in 1908, and Len Zengle, Chadwick, the 1909 winner. Neither was present this year.

### SUMMARY OF CHICAGO MOTOR CLUB'S HILL CLIMBING CONTEST AT ALGONQUIN, SEPTEMBER 17

#### Fully Equipped Stock Cars.

##### Class A, Division 1A—\$800 and Under.

Phillips Algonquin		Total
Driver and Car	Time	Time
Lincoln, Brush	1:17	1:45 3:02

##### Division 2A—\$801-\$1,200.

Rite, Ford	0:27½	0:53½	1:21½
Gruener, Ford	0:31	0:55½	1:26½
Pendleton, Cartcar	0:32	1:00½	1:32½
Harding, Oakland	0:35½	1:00	1:35½
Hammerly, Cartcar	0:35½	1:05	1:40½

##### Division 3A—\$1,201-\$1,600.

Dull, Parry	0:24½	0:50½	1:15½
Salisbury, Moline	0:26	0:57½	1:23½
Monckmeier, Staver	0:31	1:06½	1:37½

##### Division 4A—\$1,601-\$2,000.

Hearne, Jackson	0:24	0:46	1:10
Cooney, Velie	0:23½	0:49½	1:12½
Branstetter, Kisselkar	0:28½	0:54	1:22½
Seek, Inter-State	0:29½	0:55½	1:24½
Monsen, Marion	0:29½	0:57½	1:27½

##### Division 5A—\$2,001-\$3,000.

Seek, National	0:19	0:46	1:05
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#### Stock Chassis.

##### Class B, Division 2B—161-230 Cubic Inches.

Stickney, Velie	0:23½	0:46½	1:09½
Monckmeier, Staver	0:22½	0:46½	1:09½

##### Division 3B—231-300 Cubic Inches.

Gelnaw, Falcar	0:19½	0:40	0:59½
Callionette, Moon	0:19½	0:43½	1:02½

Dull, Parry	0:21	0:45	1:06
Pearce, Falcar	0:21	0:45½	1:06½
Jackson, Pullman	0:21½	0:45½	1:06½
Hughes, Falcar	0:21½	0:48½	1:10½
Schoeneck, Kisselkar	0:22½	0:49	1:11½
Monsen, Marion	0:23½	0:50	1:13½
Turgeon, McIntyre	0:22½	0:52½	1:15½
Killip, Imperial	0:28	0:53	1:21

##### Division 4B—301-450 Cubic Inches.

Greiner, National	0:17½	0:39½	0:57½
Cooney, Velie	0:19½	0:42	1:01½
Stickney, Velie	0:20½	0:41½	1:02
Branstetter, Kisselkar	0:21	0:45½	1:06½
Hearne, Jackson	0:24	0:46½	1:10½
Ireland, Midland	0:20½	0:50½	1:11½
Mattoon, Lexington	0:25½	0:52½	1:18½

##### Division 5B—451-600 Cubic Inches.

Greiner, National	0:18½	0:39½	0:58½
Hearne, Benz	0:19	0:42	1:01

##### Division 6B—601-750 Cubic Inches.

Greiner, National	0:19½	0:41	1:00½
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##### Division 3B—300 Cubic Inches and Under.

Callionette, Moon	0:19½	0:41½	1:01½
Gelnaw, Falcar	0:22	0:40½	1:02½
Hughes, Falcar	0:20	0:43½	1:03½
Pearce, Falcar	0:20½	0:44½	1:05
Monsen, Marion	0:23½	0:46½	1:10
Schoeneck, Kisselkar	0:22½	0:48	1:10½
Turgeon, McIntyre	0:23½	0:49½	1:12½
Moritz, Henry	0:27½	1:01½	1:28½
Jackson, Pullman	Stalled	0:50½	—

##### Division 5B—600 Cubic Inches and Under.

Greiner, National	0:18½	0:41	0:59½
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#### Free-for-All.

Greiner, National	0:18½	0:41	0:59½
Hearne, Benz	0:17½	0:42	0:59½
Cooney, Velie	0:19½	0:41½	1:00½
Engleb'k, Stod.-Day	0:20	0:41½	1:01½
Stickney, Velie	0:19½	0:42½	1:02
Ireland, Midland	0:21	0:44½	1:05½
Rice, Ford	0:24	0:44	1:08
Gruener, Ford	0:21	0:48	1:09
Mattoon, Lexington	0:27	0:52	1:19

#### Fully Equipped Stock Cars—Formula Class.

##### Class A, Division 1A—\$800 and Under.

Phillips Algonquin		Total
Driver and Car	Per Cent	Per Cent
Lincoln, Brush	3.88	4.93 8.81

##### Division 2A—\$801-\$1,200.

Pendleton, Cartcar	2.99	5.60	8.59
Harding, Oakland	3.33	5.58	8.91
Hammerly, Cartcar	3.31	6.02	9.33

##### Division 3A—\$1,201-\$1,600.

Monckmeier, Staver	2.36	5.05	7.41
Dull, Parry	2.75	5.54	8.29
Salisbury, Moline	2.80	6.23	9.03

##### Division 4A—\$1,601-\$2,000.

Monsen, Marion	2.73	5.27	8.00
Cooney, Velie	2.64	5.58	8.22
Hearne, Jackson	3.04	5.83	8.87
Branstetter, Kisselkar	3.06	5.79	8.85
Seek, Inter-State	3.35	6.24	9.59

##### Division 5A—\$2,001-\$3,000.

Seek, National	2.58	6.20	8.78
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#### Oldfield Defeated at Kalamazoo.

The defeat of Barney Oldfield by local talent and a thrilling accident that proved more disastrous to the machine than the map, constituted the highlights of the race meet Wednesday, 14th inst., at Recreation Park, Kalamazoo, Mich. The home luminary was Jack Towers, who in a Marquette-Buick won the 25 miles event for which Oldfield had been the favorite. It was during the third mile of that event the accident happened, a Jackson driven by F. W. Ellis, had a front tire blow out, while going at high speed. The car at once crashed through the fence, 60 feet of which was torn away, and then shot over the embankment to the ravine below, breaking off a tree. Although a 2x4 timber was driven through the radiator, Ellis kept his seat

and escaped without injury, save to a finger. For 15 miles Oldfield led in the Knox, but Towers finally closed the gap when the Knox suffered a flat tire, and won handily in 27:10.

Ben Kerscher in his 100 horsepower Darracq drove two miles in 1:47. Oldfield in the Blitzen Benz negotiated a mile in 52½ seconds, which he claims is a new state record.

Robert Bondeman in a Buick won the five miles event in 6:16½, Thomas Orrell in a Hudson being second. Kerscher in his 100 horsepower Darracq at scratch won the free-for-all five miles handicap, defeating Ellis and Orrell. Kerscher's time was 5:16, the Jackson being second. Jack Towers in the Marquette-Buick captured the five-miles event in 5:24, F. W. Ellis in the Jack-

son being second, and Thomas Orrell, in a Hudson, third. The summary:

Twenty-five miles—Won by Jack Towers, Marquette-Buick; second, Barney Oldfield, Knox. Time, 27:10.

One mile time trial by Barney Oldfield, Blitzen Benz—Time, 0:52½.

Two miles time trial by Ben Kerscher in 100 horsepower Darracq—Time, 1:47.

Five miles for cars selling at \$1,000—Won by Robert Bondeman, Buick; second, Thomas Orrell, Hudson. Time, 6:16½.

Five miles free-for-all—Won by Ben Kerscher, Darracq (scratch); second, F. W. Ellis, Jackson (30 seconds); third, Thomas Orrell, Hudson (60 seconds). Time, 5:16.

Five miles open—Won by Jack Towers, Marquette-Buick; second, F. W. Ellis, Jackson. Time, 5:24.



**"T. R." SEES DEPALMA'S FLIGHTS**

**Applauds New Yorker's Record-Breaking Performances at Syracuse—Robertson Has a Bad Day and Wins Nothing.**

With "T. R." and Lieutenant Governor White looking on and serving as honorary referees, not to mention the huge throng that gathered to see both Mr. Roosevelt and the sport itself, "automobile day" at the New York State Fair at Syracuse, which was celebrated on Saturday last, 17th inst., was very much more than an ordinary day.

Apart from the distinguished guests and the great crowd, the racing on the mile track proved spirited and interesting, and resulted in the shattering of several of those "world's circular dirt track records," which Messrs. B. Oldfield and William Pickens love so well.

Ralph DePalma and not Oldfield, however, was the record-shatterer. Oldfield himself was among the missing. He was picking something easier further west. However, Ralph DePalma, George Robertson, Louis Disbrow and John Juhasz came from New York City, Frank Kulick from Detroit, and Harry Endicott from Indianapolis, and with the local talent they provided entertainment and enough of it. It was thought that Robertson and DePalma would engage in stirring battle, but in a tryout the former broke the crankshaft of his big Simplex and used a borrowed Knox car, which was over-powered by DePalma's 90 horsepower Fiat and several other of the contesting cars. One third prize was all that Robinson could gather during the afternoon. DePalma, on the other hand, not only shattered records, but captured both the five miles and the ten miles free-for-all, in both of which Kulick was the runner-up. In both events DePalma averaged away under a mile a minute, doing the five miles in 4:24.15, a shade better than the dirt track record of 4:24½. Previously, however, DePalma, in a time trial, had covered the distance in 4:11.92, thirteen seconds inside the former figures. The young man from New York twice hurled himself and his Fiat against the mile record. On his first attempt he did 49:13, inside the record of 49:25 made by Oldfield at St. Paul the previous week, but not far enough inside to please DePalma. Accordingly he obtained permission for another go at it, and this time—and "T. R." having arrived meanwhile—he brought it down to 48.92. And they say "T. R." applauded.

Next to DePalma, W. King Smith was the biggest figure of the day. Driving a National he defeated Disbrow, National, and Endicott, Velie, in the 10 miles, 301-450 class, and he also took the 10 miles for

Syracuse residents. In the 301-450 race Endicott's Velie took fire on the last lap and was considerably damaged, but the driver himself escaped unhurt. Richard Gleason, also in a National, was another Syracusan who showed the way home to visitors. In the 10 miles "under 450" class he romped in ahead of Juhasz, S. P. O., and Disbrow, National, in the good time of 9:57.26. The summary:

Five miles stock chassis under 300 cubic inches—Won by John Juhasz, S. P. O.; second, E. H. Sherwood, Mercer; third, Elery Wright, Maxwell. Time, 5:28.92.

Ten miles, stock chassis 301-450 cubic inches—Won by W. K. Smith, National; second, L. A. Disbrow, National; third, Harry Endicott, Velie. Time, 10:10.76.

Mile trials by Ralph DePalma, 90 horsepower Fiat, against "world's mile circular dirt track record of 49¾ seconds" made by Oldfield, Benz—First trial, 0:49¾; second trial, 0:48.92 (Record).

Ten miles, stock cars sold by Syracuse dealers and driven by local residents—Won by W. K. Smith, National; second, Roy Hawkins, Simplex; third, Charles Rollins, National. Time, 12:49.60.

Ten miles handicap, free-for-all—Won by Frank Kulick, Ford; second, Richard Gleason, National; third, E. H. Sherwood, Mercer. Time, 11:19.73.

Five miles against time by DePalma, "90" Fiat, to lower his own mark of 4:24.2—Time, 4:11.92 (Record).

Five miles free-for-all—Won by DePalma, Fiat; second, Kulick, Ford; third, Robertson, Simplex. Time, 4:24.15.

Ten miles free-for-all—Won by DePalma, Fiat; second, Kulick, Ford; third, Rollins, National. Time, 8:50.11.

Twenty-five miles, stock chassis under 450 cubic inches, cut to 10 miles on account of darkness—Won by Richard Gleason, National; second, John Juhasz, S. P. O.; third, L. Disbrow, National. Time, 9:57.26.

**Oldfield "Shows" at His Old Home.**

Barney Oldfield, who is now making a circuit of the fall festivals in Michigan and Ohio, and dividing honors with the pumpkins, reached Toledo last Saturday, 17th inst., when he cut the mile record on a half mile circular dirt track to 1:04¾. The previous notch was 1:06¾, made by himself last year at the Findlay (Ohio) fair. Toledo is Oldfield's former home, so he occasionally gets around there to clean up odd track marks that may be scattered about. Oldfield, however, doubtless for some good but unexplained reason, did not go against the mile record as announced in advance. Ben Kerscher in his Darracq took a hand in breaking things by lowering the track record for two miles by two seconds, to 2:20. A three miles handicap race was arranged between Oldfield and Jake Meizinger in an E-M-F, and the latter won by three seconds, with a handicap of 30 seconds.

**OLDFIELD GOES TO GRAND RAPIDS**

**He and Kerscher Engage in Their Usual Time Trials but Meet Defeat in the Handicap Event.**

The fastest time ever made in Michigan for one, two and five miles were hung up by Barney Oldfield and Ben Kerscher in the automobile meet the 15th inst. at Comstock Park, Grand Rapids. In two trials. Oldfield did the mile in 51¾ seconds and two miles in 1:45. Kerscher's time for five miles was 4:38¾.

Of the competitive events, William Fair in a Buick won the five miles for Class C stock cars in one of the best contests of the day. He took the lead immediately and never was headed, but he was given a close run by George Clarke in the Cutting. The time was 5:19¾. Jack Tower in a Buick won the five miles race for larger cars in 5:17. He was being pushed hard by Clarke when the latter was forced to quit owing to engine trouble. In the 10 miles event, however, Clarke defeated Tower by half a lap in 10:19¾.

Oldfield in the Knox and Clarke in the Cutting were the only ones to start in the 25 miles free-for-all, and of course Oldfield won in 24:46¾. Clarke, who received 20 seconds allowance, took the five miles handicap in 5:03. Kerscher in the Darracq (scratch) was second and Oldfield in the Knox, with five seconds allowance, third. Clarke, with 10 seconds allowance, met with the blow-out of a rear tire on the first lap of the three miles handicap, while leading the field, and had to withdraw. Oldfield then went ahead and won from Kerscher in 3:01¾. The summary:

Twenty-five miles free-for-all—Won by Barney Oldfield, Knox; second, George Clarke, Cutting. Time, 24:46¾.

Five miles handicap—Won by Clarke, Cutting (20 seconds); George Padley, Henry (1.10), second; Oldfield, Knox (5 seconds), third; Glenn Austin, Maxwell (1.10), fourth; Kerscher, Darracq (scratch), fifth. Time, 5:03.

Three miles handicap—Won by Oldfield, Knox (5 seconds); second, Kerscher, Darracq (scratch). Time, 3:01¾.

Ten miles, Class C—Won by Clarke, Cutting; second, Tower, Buick; third, Padley, Henry. Time, 10:19¾.

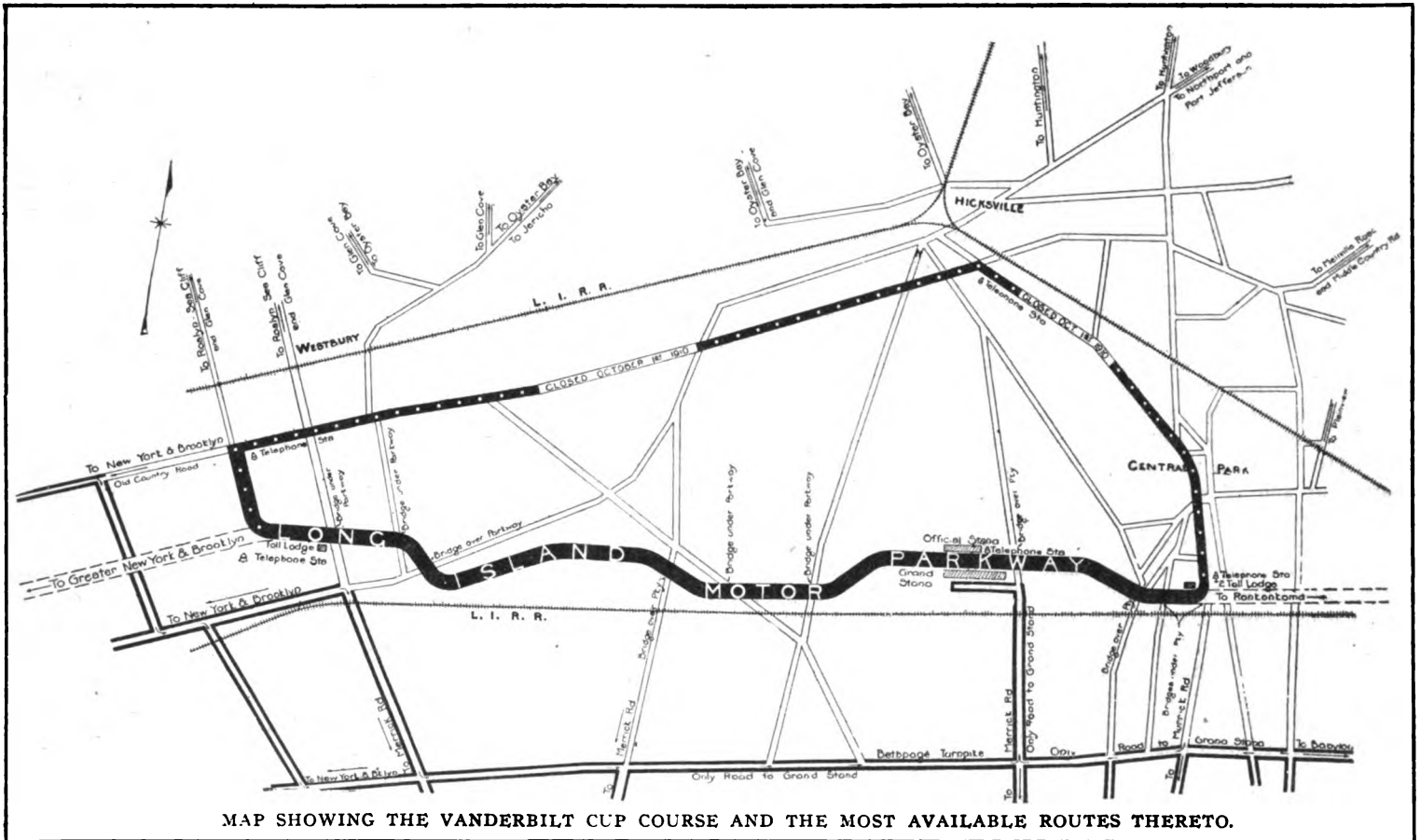
Five miles, Class C—Won by Jack Tower, Buick; second, Padley, Henry. Time, 5:17.

Five miles, Class C—Won by Fair, Buick; second, Clarke, Cutting; third, Austin, Maxwell; fourth, Padley, Henry. Time, 5:19¾.

Five miles match—Won by Austin, Maxwell; second, Padley, Henry. Time, 6:02¾.

Five miles time trial—Kerscher, Darracq. Time, 4:38¾.

# Preparations for Vanderbilt Race in Full Swing



MAP SHOWING THE VANDERBILT CUP COURSE AND THE MOST AVAILABLE ROUTES THERETO.

Practice for the Vanderbilt cup race on October 1st was begun at daylight Tuesday morning over the Long Island Motor Parkway, when the veteran Leland Mitchell in H. B. Harris's Simplex and Walter Jones in the two-cycle Amplex of S. J. Wise & Co., made the circuit in 12 minutes 18 seconds and 11 minutes 52 seconds, respectively. The former was with standing start, while the latter got away flying. Jones is only 20 years old, but has had much experience. Mitchell piloted the Harris Simplex last year in the same event.

Both the Speedway and the country roads which are included in the course have been well oiled and are in prime condition, and 25 signal men with red and white flags already are on duty to contribute to the safety of the practice spins. The white flag signifies danger to the drivers, the red safety; to the public the interpretation would be the reverse.

Hereafter daily practice is to be the rule, except Sundays, between 5 and 8 a. m. In connection with the trials there will be a welcome innovation through the introduction of the Warner automatic timing instrument, which is to be in operation one week before the contest. In previous years drivers frequently have been credited with absurdly fast speed during their try-outs, which will no longer be possible. The

practice times are to be taken officially by

## ENTRIES TO DATE.

### For Vanderbilt Cup Race.

- 1—Benz, George Robertson.
- 2—Benz, Edward A. Hearne.
- 3—Benz, David Bruce-Brown.
- 4—Alco, Harry F. Grant.
- 5—Pope-Hartford, Jack Fleming.
- 6—Pope-Hartford, Bert Dingley.
- 7—National, John Aitken.
- 8—National, Al Livingstone.
- 9—Simplex, Leland Mitchell.
- 10—Simplex, Ralph E. Beardsley.
- 11—Lozier, Ralph Mulford.
- 12—Marquette-Buick, Louis Chevrolet.
- 14—Marquette-Buick, Robert Burman.
- 15—Marquette-Buick, Arthur Chevrolet.
- 16—Apperson, Harris Hanshue.
- 17—Marmon, Joe Dawson.
- 18—Marmon, Ray Harroun.
- 19—Jackson, E. F. Scheiffer.
- 20—Corbin, Joe Matson.

### For Wheatley Hills Sweepstakes.

- 31—Marion, Marcel Basle.
- 32—Marmon, not named.
- 33—Mercer, E. H. Sherwood.
- 34—Corbin, A. J. Maisonsville.
- S. P. O., Jean Juhasz.
- Correja, not named.

### For Massapequa Sweepstakes.

- 41—Cole "30," Bill Endicott.
- 42—(Open).
- 43—Cole "30," Louis Edmunds.
- 44—Lancia, William Knipper.

Messrs. Poertner, Knipper and Interrieden.

A majority of the camps already are pitched. The Simplex and Marquette-Buicks are at Huntington, the Corbins at Hicksville, the Marmons at Krug's Corner, the three Nationals, the Mercer and the Roebeling-Planche at Garden City, and the Alco at Mineola. The Marquette-Buick team consists of Louis and Arthur Chevrolet and Robert Burman, and the Marmon team of Ray Harroun, Joe Dawson, Dave Buck and Louis Heinemann. The Chevrolets, by the way, are attempting to devise a new signal system in order to indicate correctly from the pits their position in the contest. Last year, it is stated, a mistake in the interpretation of a signal caused an accident that put their car out of the running.

Harris Hanshue, who will drive the Apperson, lives in Los Angeles and has not previously raced in the East. He is widely known, however, on the Pacific slope, where he last year won the classic Portola race, also the Ferris cup. Somehow there is a decided Western influx this year, for William Endicott of the Cole, Al Livingstone of the National, and Jack Fleming of the Pope-Hartford, all gained prominence west of the Rockies. Bert Dingley, now of the Pope-Hartford staff, is also a California resident. E. F. Scheiffer, the Jackson

driver, is another Westerner about to make his debut in the East, while Lee Oldfield, of Los Angeles, is slated to pilot one of the six Abbott-Detroit cars, which their makers say have been entered—three in the Vanderbilt and three in the Massapequa sweepstakes—but inquiry yesterday (Wednesday) disclosed that the entries had not reached headquarters.

With more than thirty entries already in hand, the success of the contest, so far as the number of starters is concerned, is assured. A list of not less than forty is expected.

The course this year is again partly made up of a section of the highway system of Nassau county, including the Massapequa and Old County roads, now in the pink of perfection. The turns this season, with the exception of that at Massapequa, which has an acute angle, will not be banked as formerly. Instead the one at Westbury in particular and all of them in general will be broadened and at the same time made flat, so that the swing need not be so sharp. The complete circuit is the same as last year, 12.64 miles long, which, with 22 laps being made, gives 278.08 miles as the exact distance to be covered in the Vanderbilt cup event. Incidentally nearly twenty-five miles of practically completed motorway will, on the date of the race, be added to the 20 miles thrown open to the public last June.

Instead of the 9 o'clock start made last fall, the getaway will be made at daybreak, as in the earlier years of the race; that is, unless fog should prevent. In case of haze the start will be made the minute the atmosphere is clear enough to ensure safety.

It seems well nigh certain that faster time than ever will be made this year, barring heavy rain or high winds, for aside from the general improvement in mechanical construction of the cars the surface of the Parkway is appreciably smoother than a year ago. Extensive touring over it this season has worn the cement enough to foreshadow less tire trouble than previously, while every year's experience betters the condition of the Nassau roads.

The Vanderbilt event is open to cars with piston displacement of not less than 301 nor more than 600 cubic inches, according to the conditions of Class C in the 1910 rules of the contest board of the American Automobile Association. There are no other restrictions, provided the manufacturer has built 50 cars of the same model during the year preceding the event. Cars of 4C and 5C divisions will compete as one class, the winner to receive in addition to custody of the cup, a bronze plaque and \$2,000 in cash.

In addition to the Vanderbilt cup contest, the main event, there are two other competitions—the Massapequa and the Wheatley Hills sweepstakes. The cars in each are to be started an hour or thereabouts after the candidates for the Van-

derbilt trophy, the idea being to promote enthusiasm by a bunched finish. The two subsidiary events are open for cars in Class B of the 1910 rules of the contest board of the American Automobile Association, including 2B for cars of 161 to 230 cubic inches and 3B for cars of 231 to 300 cubic inches. The Massapequa sweepstakes for cars in Class 2B (161 to 230 cubic inches) will have a trophy and \$1,000 in cash for the winner. The Wheatley Hills sweepstakes for cars in Class 3B (231 to 300 cubic inches) will also have a trophy and \$1,000 in cash for the winner. There will be ten laps in the Massapequa class, a total of 126.4 miles. The Wheatley Hills class will cover the course 15 times, equivalent to 189.6 miles.

In order to supplement the train service and secure more direct routes, the Motor Cups Holding Co. has made special arrangements with the Long Island Sound ferry companies on the day preceding the contest. The boats included run from Rye to Sea Cliff, Stamford to Cold Spring, Bridgeport to Port Jefferson, and New London to Greenport.

There will be the usual social groups, according to clubs and cars. The Long Island Club has secured parking space for 1,000 cars, and another large plot is reserved for the New Haven club. Among the cateries, the Pope-Hartford will perhaps be the most notable. The Pope-Hartford Manufacturing Co. has reserved space 600 by 300 feet east of the grand stand, along with tents where light breakfast will be served. Many invitations to Pope-Hartford owners to join the throng have been sent out.

The temporary offices and information bureau of the Motor Cups Holding Co., at Room 212, Long Acre building (Broadway at 43d street), is open from 9 a. m. to midnight. The 'phone number is 588 Bryant.

#### British Attitude Toward Road Racing.

Much adverse criticism has developed abroad over the decision of the Royal Automobile Club not to hold a road race next year on the Isle of Man. It was the opposition of the Society of Motor Manufacturers, however, that actually determined the matter, the club itself not being adverse to the idea. The outcome leads the foreign trade press to insist upon a point of which much has been heard in this country for several months—that events should be promoted for amateurs—that is, owners and not for manufacturers. It should not be understood, however, that all makers of cars in the British Isles are opposed to racing events, there being a minority strongly in favor of such competitions. This minority would undoubtedly jump at the chance to enter special classes, in case the club arranged a program particularly for amateurs. The majority of the manufacturers, however, seem to be "dead set" against every form of competition, no mat-

ter how inexpensive. The Royal Club, it is urged, will lose its hold on the industry if competitions are abolished, inasmuch as it will be impossible to disqualify makers on the score of abuses.

#### "Outlaw Chauffeurs" in Law's Toils.

What is described by indignant Brooklyn citizens as a company of "outlaw chauffeurs" was rounded up by Chief Taxicab Inspector John Drennen near the Atlantic avenue subway station on Monday, 16th inst. It seems that eight chauffeurs (who possessed neither licenses nor registration numbers, nor any one of the other half dozen requirements which a taxicab chauffeur in the city of Greater New York should fulfill before plying his trade as a public hackman) established a stand opposite the subway station and proceeded to charge double and triple rates to their unlucky "fares." In place of registration numbers the taxicabs are said to have been fitted with hieroglyphic signs which no man could make out, so that complaints made to the bureau of inspection proved useless. Finally Inspector Drennen decided on a general round-up and caught the eight in the net.

#### Germans Promoting International Contest.

The Kaiserlicher Automobile Club and the German Motor Car Manufacturers' Association have decided that competitions during the next three years for the new trophy offered by Prince Henry shall be held annually in two countries. It is proposed to run the first contest—that of 1911—over a course of 2,500 miles, partly in Germany and partly in Great Britain, while the second and third competitions—in 1912 and 1913—would be held in Germany and Russia, and in Germany, Italy and Austria-Hungary. It is proposed that each of the national clubs concerned in each of these events shall be represented by a team of 50 cars, and the trophy will go to the team having the smallest penalization. In events for the new trophy there will be no speed trials.

#### Thieves with an Eye to Accessories.

Although thefts of automobiles and tires are becoming so frequent as to excite little comment, occasionally a new wrinkle is introduced into the kleptomaniacal performance which lifts it above the level of an ordinary theft, as in the case of a touring car belonging to Dr. Charles Meisley, which was stolen while standing in front of one of New York's famous "beaneries" on upper Broadway around 3 a. m. The thieves drove it to West 24th street near Eighth avenue, where they unscrewed the lamps, rifled the tool box, ripped off all four tires and disappeared with this loot. The "stripped" car was left standing in the dark side street until discovered by a patrolman. Evidently the thief knew that accessories are more easily disposed of than a car.

**TERRY BACKS ATTORNEY-GENERAL**

**Did Not Reverse Himself, He Declares—  
No Justification for Misinterpretation  
of His Reciprocity Ruling.**

In the opinion of Charles Thaddeus Terry, Esq., chairman of the legislative board of the American Automobile Association, all of the Albany (N. Y.) correspondents, who apparently drew their inspiration from official sources, and all others who believe that Attorney-General O'Malley had reversed himself in the matter of inter-state reciprocity, did a considerable injustice to that gentleman. So long as approval of his course in apparently deciding that the "like exemption and privileges" accorded by New York state to non-resident motorists meant the same sort of exemption, no more or no less, than is accorded by other states—so long as this was the rule, Mr. O'Malley did not seem to be concerned about the misinterpretation of his opinion, but when criticism and opposition arose and attained volume, the concern quickly became evident and further explanation, which certainly made appear that the Attorney-General had diplomatically reversed himself, at once was forthcoming. Counselor Terry, however, believes that at no time was the O'Malley opinion susceptible of misinterpretation and that he was placed in false light by the many reports that grew out of it. In a courteous letter to the Motor World, defending the state official, Mr. Terry says:

"I have noticed in the issue of Motor World of September 8th, 1910, an article designated 'All Welcome Except Jerseyites. New Decision of New York State's Attorney General Removes Restrictions on Visitors—Reverses Himself.'

"I ask your indulgence in permitting me to say that, as a matter of fact, it is a considerable injustice to Attorney-General O'Malley to say that he has reversed himself, or to otherwise indicate that his original opinion, with reference to the rights of non-resident motorists upon the highways of New York state, has been changed. In truth he has not reversed himself nor changed front in the slightest degree. His opinion, originally rendered in August, 1910, was perfectly clear, logical and, in my judgment, sound, as to the relations of non-resident motorists to the use of the highways of this state under the motor vehicle statute passed at the last session of our legislature. To be sure, his opinion was misinterpreted by a too hasty examination by many motorists and others in Connecticut, Massachusetts, Pennsylvania and even in New York state. There was no large justification for a misinterpretation of Mr. O'Malley's opinion, because it was

couched in perfectly simple and clear language, and the conclusion which he reached was set forth explicitly and in unambiguous terms. How the misunderstanding arose in the minds of those above mentioned, I cannot undertake to explain. But I do know that it was a misunderstanding from the start, and that there was not very great ground for it.

"Attorney-General O'Malley's memorandum of September 2d was not in any sense a reversal of his former opinion, nor did it alter it in the slightest. It was simply an explanation put in other terms of what he had said with sufficient clearness before. I write this in the interest of simple fairness, and in order, if possible, that the Attorney-General may be relieved of the slightest suggestion of having made an error in the first instance. Attorney-General O'Malley and Secretary of State Koenig have so promptly and clearly set forth their views upon every controverted point arising under the statute, thus far, that they should receive the heartiest commendation of all motor vehicle users and others interested in the traffic by this class of vehicles upon our highways."

**Frelinghuysen Feels Effects of His Law.**

Joseph S. Frelinghuysen, who gave New Jersey an automobile law that proved a boomerang, will not be governor of that state. His burning desire to serve it in that capacity was sadly blighted on Tuesday last when the Republican state convention met in Trenton. Frelinghuysen was one of the four men who sought the gubernatorial nomination and whose names were presented. He finished fourth, receiving but 53 of a total of more than 1,000 votes. That his attitude to automobilists and their attitude toward him contributed to the disfavor in which he was held as a vote-getter there is no doubt. The convention also took notice of the Frelinghuysen law in its platform, but in a fashion that really signifies little. The plank dealing with the subject is as follows:

"We heartily indorse the policy inaugurated by the Republican party of using all revenue from automobile licenses for the repair and maintenance of our splendid system of improved roads, and we advocate such legislation with respect to automobiles as shall be just alike to the automobilists and to the taxpayers of this state, and, also, properly promote the reciprocal relations between this and other states with respect to the use of their respective highways by non-resident automobilists."

**Ontario-Upland Club is Organized.**

Twenty-four owners of motor cars of Ontario and Upland, Cal., have organized the Ontario-Upland Automobile Club. W. A. Freemire, Jacob Jesson, W. L. Malone and N. A. Cavanagh are among the charter members.

**TAXICABS ARE HACKS, SAYS COURT**

**Discrimination Against Them Declared Unconstitutional—Advantages and Volume of Business Can't be Taxed.**

Although it appears to be legal to impose on owners and operators of self-propelled pleasure vehicles fees and licenses not exacted of those who pursue pleasure in horse-drawn rigs, Judge Bischoff, in the New York Supreme Court, on Thursday last, 15th inst., ruled that practically similar discrimination of the sort when applied to business vehicles is unconstitutional. He held that because one form of vehicle possesses advantages over another form is not lawful reason why it should be subjected to higher fees or discriminated against.

Judge Bischoff's decision was rendered in a test case instituted by the Universal Taxicab Co. to restrain the City of New York from enforcing the new ordinance subjecting taxicab companies using meters to a higher license rate and lower fare than other public vehicles.

That the Court's research on the question was exhaustive is indicated by his opinion, which begins:

"A 'hack' or 'hackney coach' is a vehicle offered for hire from its stand in the public thoroughfare and intended for the use of passengers. It is of ancient origin. Samuel Repys in his diary, written between the years 1660-1669, mentions the fact that he took a 'hackney coach' over London Bridge (Pepys's Diary II., 320), and it derived its name from Hackney, a metropolitan borough in the northeast of London, between which and London its use is supposed to have been the first instituted. In the sense, therefore, that the motor vehicles operated by the plaintiff are offered for hire from its hack stand in the street they are 'hacks' or 'hackney coaches,' by whatever other name they may be called."

Last August by amendments to the city ordinances all motor vehicles equipped with a taximeter had their license fee increased to give the city money to hire inspectors to examine the taxicabs, and were required to reduce their fare from 50 cents for the first half mile to 40 cents. The Court says:

"These amendments are assailed by the plaintiff as contrary to the Fourteenth Amendment of the Constitution of the United States in that they deny to the plaintiff and others similarly situated the 'equal protection of the laws,' and this motion is made for an interlocutory injunction to restrain the enforcement of such amendments pending this action for permanent injunctive relief. That the complaint is well founded seems an irresistible conclusion.

"Nothing in the ordinances as amended points to any just cause for any differentiation between vehicles equipped with taximeters and those not so equipped. Both classes are employed in identically the same business, and the owners or operators of both are therefore entitled to be treated alike. There is nothing unlawful in the use of the taximeter, and it is beyond the power of the State in the exercise of its police power and of the municipality in the exercise of its delegated power to impose upon the owners or operators of vehicles equipped with a taximeter the necessity of abandoning its use to escape the higher license fee and the lesser maximum rate of fare.

"The discrimination against the use of taximeters seems wholly arbitrary, and indeed the only reason given by counsel for the defendants for it is that since the taximeter as a means of detecting errors and impositions in the charge for hire of vehicles so equipped will draw to the owners and operators the larger share of public patronage they should be content with the payment of a higher license fee and a lesser maximum rate of fare.

"As well might the municipal legislative body have discriminated against clocks or watches carried by the operators of such vehicles, or other devices calculated to measure the time of travel, or between vehicles furnished with cushioned seats, mirrors and haircomb and brush, and others not so furnished.

"This argument plainly is one in favor of penalizing him who because of the better accommodations in his business attracts to himself the greater favor of patronage, and involves a tax purely and simply upon one the volume of whose business may exceed that of his competitor engaged in essentially the same business. That such a tax infringes upon the constitutional provision hereinbefore alluded to was emphatically ruled by the Supreme Court of the United States in *Cotting vs. Kansas City Stock Yards Company* (183 U. S. 111).

"Says Mr. Justice Brewer, writing the opinion of the court in the case last alluded to: '\* \* \* We must \* \* \* always remember that the equal protection of the laws is denied when upon one of two parties engaged in the same kind of business and under the same conditions burdens are cast which are not cast upon the other. \* \* \* If once the door is opened to the affirmance of the proposition that a State may regulate one who does much business while not regulating another who does the same but less business, then all significance in the guarantee of the equal protection of the laws is lost.'"

If Justice Bischoff's decision is sustained by the higher courts the city will have to make some other provision for the maintenance of the special bureau of taximeter inspectors than obtains at present, since no appropriation was made for running the

taximeter bureau except from the increased taxation upon the 2,000 taximeter cabs in the city. The New York Transportation Co., which operates the largest number of taxicabs, has been paying the increased tax under protest, although no point was raised as to lowering the rate.

John H. Naughton, treasurer of the Universal Taximeter Cab Co., said that if the Appellate Court upheld the ordinance in question his company would take out the taximeters and run cabs under the old coach ordinance, under which the company could charge \$1 for the first hour—a move that would serve further to expose the ridiculousness of the ordinance.

#### Liberal Law that is Being Abused.

It was not until the new Motor Car Acts—the automobile law of Victoria and New South Wales—went into effect, that the great number of automobiles at present in use on the Australian continent became generally known. In fact, the totals came as a surprise to even well informed people, for no one imagined that there could be 3,500 automobiles and 2,500 motorcycles on the highways of these two states, as the registration figures prove. As the entire population of the two states does not exceed 2,800,000, in the aggregate, the proportion is a large one.

Reports from Melbourne indicate that there is little friction between motorists and the police, because the regulations for the administration of the new law are cast in reasonable, liberal lines. A speed limit, as a good many American judges, police officers and nearly all motorists assert, is useless in a city, and in Victoria a speed limit has been omitted. Ordinarily, vehicular traffic (which may, if necessary, be construed so as to include automobiles) is limited to ten miles an hour in Melbourne, but this does not give motorists the license to travel at that pace. They are required to move at a "rate which is safe and mindful of the common danger," even if it be only two miles per hour. On the other hand, they may speed along at a 20-mile clip, or even faster, through the principal streets, when the exigencies of the traffic permit it, simply because it is recognized that there is no danger when the streets are free of traffic.

But although little friction is likely to arise over the traffic regulations or the registration requirements, there is one privilege of the new law which is being grossly abused, and that by members of the trade. Dealers and manufacturers of motor vehicles are permitted to register all their cars under a blanket registration number, which carries the letter "A" behind it, similar to the "M" required by the New York law. These plates are numbered in rotation and for the privilege of using them, the dealer pays an annual registration fee of \$15.75. They may be used legitimately only on cars (a) that are on a trial run after being

built, or (b) on a trial run with a prospective purchaser. It now appears that the dealers and agents continually use cars with the trade numbers, to transact their private business, for pleasure trips, and even for public hire. One firm is said to have about twenty cars out on the streets, all running under the same registration number. Such wholesale abuse of a privilege, of course, could have but one effect, and the police authorities are now taking steps to prosecute the offending firms.

Motorists, cyclists, and almost everyone else considers the Victorian Act, as it is called, the most liberal and equitable measure in operation in any country, and they greatly deplore the abuse by the dealers themselves, as it may lead to a revision of the act by Parliament, which may prove of inconvenience to the traders' section. Only a few arrests have been made for violation of the regulation by others than dealers. Two or three arrests for speeding when the condition of the streets did not warrant it, a few fines for being without number or rear tail light, and a small fine for a smoky exhaust make the record for the first month or so of the new act.

#### New Clubs Formed in Many Places.

The Middle Georgia Automobile Association has been launched at Jackson, Ga. Its officers are W. H. Mallet, president; Paul Turner, vice-president; R. A. Franklin, treasurer, and J. D. Jones, secretary.

The Western Illinois Automobile Club is the title of a new organization which has been formed at Monmouth, Ill. The officers of the club are: W. G. Stevenson, president; R. R. Murdock, vice-president; I. F. Dains, secretary; H. B. Smith, treasurer.

The Gardner Automobile Club is the name of a new club organized at Gardner, Mass., with the following officers: Theodore L. Harlow, president; L. H. Greenwood, vice-president; Fred H. Follett, secretary; George T. Greenwood, treasurer.

With E. H. Croninger as president, the Kenton County Automobile Club just has been organized at Cincinnati, Ohio. The other officers elected are as follows: William A. Kaiper, vice-president; Dr. W. Wyman, secretary; B. Adams, treasurer.

Under the style the Georgetown Good Roads & Drainage League, a large number of automobile owners and farmers of Georgetown, S. C., have organized a club and elected the following officers: J. B. Johnson, president; M. S. Bellune, vice-president; H. L. Oliver, secretary and treasurer.

Nearly fifty automobile owners of Norwalk, Ohio, "got together" and organized the Huron County Automobile Club, with the following officers: Dr. S. E. Simmons, president; J. R. Wetmore, vice-president; F. W. Watson, secretary; I. W. Goodell, treasurer. Dr. Simmons, F. W. Watson and F. Burk form the executive committee.



**EVERITT LINE IS ENLARGED**

**Hereafter Will Consist of Six Models, Including Closed Fronts, of Course—Mechanical Features Unaltered.**

By the addition of two new body styles to its list the Metzger Motor Car Co., Detroit, Mich., has increased the range of its product to six different models, all of which are founded on the same chassis. The chassis is similar to that produced hardly a year ago, when the Everitt "30" first was introduced to the public. The bodies, of course, are strictly up-to-date, particularly the two innovations, which are of the closed front pattern.

The entire line as now constituted includes the standard touring car, small tonneau, five passenger closed front touring car, four passenger closed front touring

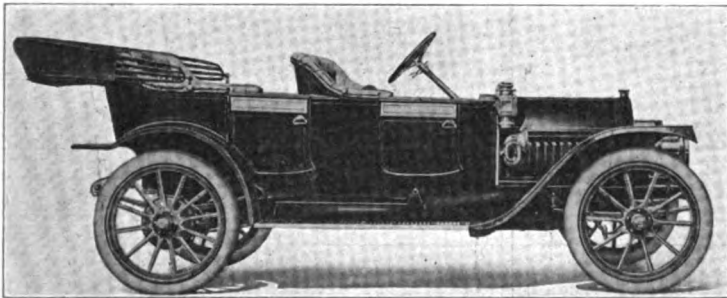
style. In both these vehicles, all levers are placed inside the body, due care being taken to ensure ample room for the fingers so that there shall be no danger of jamming them when operating the levers. The control devices are placed within easy reach of the driver and are of the standard arrangement.

By all odds the most interesting portion of the machine is the motor, which is a peculiarly clever adaptation of the block principle. The four cylinders, with their water jackets, valve pockets, the upper half of the crank case, the inner half of the two-to-one gear housing and the supporting arms, as well as the cam shaft housing, all are included in a single unit casting, most wonderfully cored and machined. This arrangement has been so contrived that the lower part of the case, which comprises the usual oil pan, may be dropped and the crank shaft, or even the pistons and connecting rods removed, without disturbing the motor in the chassis. As the

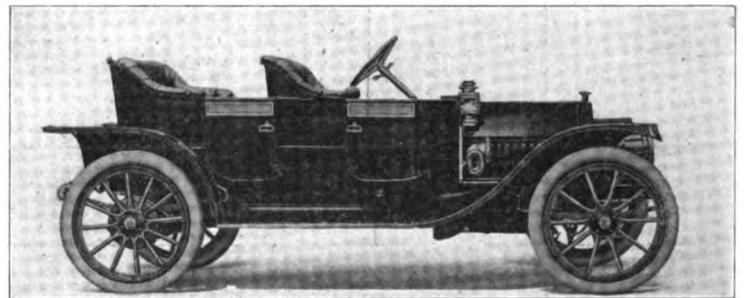
pension is semi-elliptical in front and of the full elliptical-scroll end pattern in the rear. The wheel base is 110 inches, and the wheels are 34 inches in diameter, shod with  $3\frac{1}{2}$  inch tires.

**Uneven Running Due to Valve Tappets.**

It is a melancholy fact that certain engines, of the sort such as frequently are installed in automobiles of the cheaper grade, frequently evince a tendency to uneven running after they have been in service for some little time. On careful inspection it may be found that this results from an obscure ailment of the valve mechanism. The use of too soft metal in the valve tappets may result in the "upsetting" of the working surfaces of one or more parts, thus increasing the clearance under the valve stems and so delaying the opening of the valves. A difficulty less easily discovered arises from the presence of a "soft spot" in one of the cam surfaces. This will cause the cam to wear unevenly



EVERITT "30" FIVE PASSENGER TOURING CAR



FOUR PASSENGER CLOSE COUPLED TOURING CAR

car, inside driven coupe and light delivery wagon. The standard touring model is distinguished for its great breadth of rear seat, this portion of the body being no less than 48 inches wide at the cushion and 52 inches across the shoulders. The small tonneau car is arranged with lower seats than the touring car, and with a steering column having a more acute angle than that of the touring car. The tonneau is detachable and may be removed by releasing only two bolts.

For neat condensation of style and comfort, however, attention must be directed to the new closed front models. The accompanying illustrations show how the draughtsman has worked out the straight line effect, very much after the torpedo fashion, without rendering the vehicle trappy in appearance and without sticking too close to the conventional. Both doors are of the same height, but the top moulding does not come above the line of the hood. The fenders in front are curved on the inner side, and in the rear follow the wheel line to the back of the body. The five passenger form is the largest body built on the Everitt "30" chassis.

The closed front close coupled pattern is a reduced form of the car just described, built to accommodate four passengers only, but otherwise much the same in general

water pump and magneto supporting brackets are carried on the upper part of the case, this process is rendered extremely simple. The cylinder dimensions are 4 by  $4\frac{1}{4}$  inches, bore and stroke.

The valves are mounted in pockets on the left side and operated from a single cam shaft mounted on two bearings. Because of the nature of its mounting the shaft is of very rigid construction and of  $1\frac{1}{4}$ -inch diameter, the cams being forged integral.

As has been the case in models produced up to this time, engine lubrication is accomplished by a modified splash system, provision being made for the replenishment of the case by automatic means, somewhat on the order of the system used for supplying drinking fountains from large bottles.

The master clutch is of the leather-faced cone type with relieving springs underneath the leather. The change gear set is embodied in the rear axle construction and is of the selective pattern, affording three forward speeds. The axle bridge is made up of a malleable center casting and steel tubular end sections, forced into place and pinned. It is trussed and very rigid. Double brakes are employed on the wheels, the linkage being laid out for straight line pulls on all the members. The spring sus-

and besides reducing the lift of the valve will upset the timing and cause the explosions to be less powerful than in the other cylinders.

**To Secure Mats to Floor Boards.**

Shellac, dissolved in the form of a thick syrup, is all that is needed to secure rubber or oil-cloth mats to the floor boards of the car in a satisfactory and permanent manner. Two or three coats should be applied to the floor and allowed to become "tacky" before the covering is put in place. After being pressed down firmly at all points, the rubber or fabric should be weighted and permitted to remain undisturbed for five or six hours—longer if possible.

**To Assist Starting of Cold Engine.**

To avoid delay and possible difficulty in starting a cold engine, it is well to open the throttle wide and swing the crank a few times with the spark cut off. The effect of this will be to fill the cylinders and inlet manifold with gas without any loss due to light explosions of insufficient power to start the engine. After the preliminary cranking the throttle may be brought back to the normal starting position and the engine started either on the spark or by a quarter-turn of the crank.

**REVISED REO HAS NEW BODIES**

Otherwise Its Principal Features are Retained and Improved—One and Two Cylinder Models are Unchanged.

There are three different chassis that make up the Reo line as now produced by the Reo Motor Car Co., Lansing, Mich.; and they are much the same as those produced during the past year. The two smaller models, indeed, namely, the single cylinder 10 horsepower runabout and the two cylinder opposed 20 horsepower touring car, are replicas of previous models. The four cylinder 30 horsepower car, however, which is the leader of the line, has undergone some alteration. This is the same car that recently was driven across the continent by L. L. Whitman and his

torsion tube and rear axle groups and the front axle, and given the same treatment.

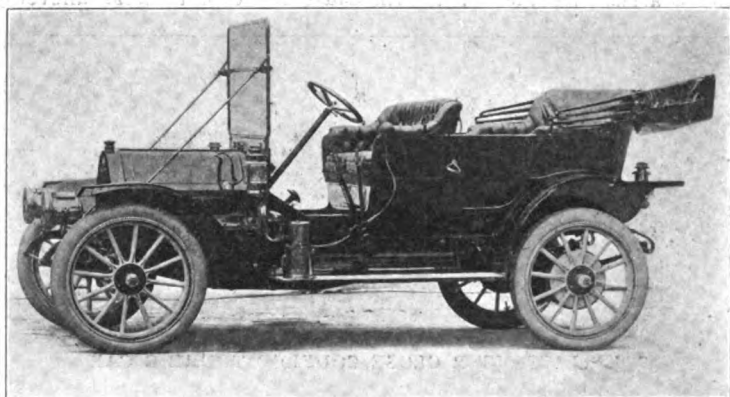
The alteration in the lubricating system has been designed to render it possible to feed a greater amount of oil at low speeds than formerly, while at the same time preventing the water from flooding at high speeds. The new arrangement also permits the use of a heavier grade of oil. Also in connection with the engine, it may be mentioned that the carburetter now is provided with a hot air intake, which fortifies the operator against carburetter troubles in cold weather and also makes it possible to get along comfortably with low grade fuel, if necessary.

With the clutch construction as now employed, it is possible to remove that important organ without in any way disturbing either the motor or the gearset. But it is even more important to note that the number of discs in the clutch has been increased, so that more pliable springs may

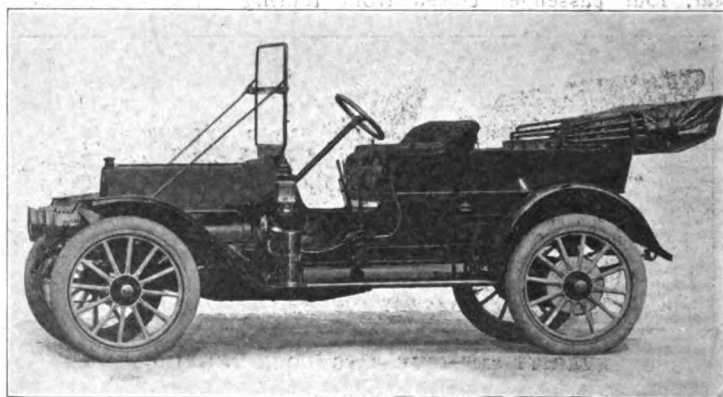
from the end bearings, even when the casing is filled with lubricant.

The front axle spindles have been increased in size, and consequently rendered more reliable. They are mounted with Timken bearings which are provided with a secure locking device to prevent them from loosening accidentally. With the exceptions noted, the construction of this model remains as heretofore.

The accompanying illustrations indicate the neatness and clean-cut appearance of the new bodies. The new model "S" roadster has the same body as the corresponding model of the previous series, while it is mounted on the same chassis as the model "R." The five passenger body is extremely roomy considering the external dimensions, and at the same time so worked out as not to be unduly "chunky" in appearance. The four passenger model gives the effect of the compact close-coupled type of body so much affected by the builders of larger cars,



FOUR CYLINDER REO TOURING CAR MODEL "R"



FOUR PASSENGER ROADSTER MODEL "S"

companions in a little over twelve and a half days, breaking all transcontinental records.

In addition to the distinction of being one of the few light touring cars now produced that are equipped with left hand control mechanism, the Reo four possesses a number of other points of favorable distinction. Its motor is of the type that has the inlet valves of very large diameter and mounted in the cylinder heads, while the exhausts are offset at one side. Its cylinder dimensions are 4 by 4½ inches. It has dual ignition, with low tension magneto, coil and batteries; automatic force feed lubrication, with return overflow; and in general accessibility and mounting is well up in its class. The master clutch is of the multiple disc type; the selective sliding gearset is mounted in the frame just back of the clutch; and the drive to the semi-floating rear axle is through a single-jointed propeller shaft housed in a combined torsion tube and radius member.

In working over the design of this model after a full year's service on the road a number of desirable improvements have been introduced. These affect mainly the oiling system, the clutch, propeller shaft,

be used in separating the discs, while the tendency to slippage caused by the accumulation of oil on the plates is provided against. A minor change in its way is the strengthening of the gear-shifting arm which actuates the gearset in effecting the speed changes. Also in the nature of a small but useful change is the adoption of six spring locks to hold the sod pan in position, the result of the innovation being that the housing can be dropped in a couple of minutes without the necessity of getting under the car.

The rear axle bearing equipment is of the Timken roller variety, saving only the two outer bearings, which are of the plain ball type running on hardened steel sleeves and in hardened steel cages. The propeller shaft, which has been materially increased in diameter, also is mounted on Timken bearings. The torsion tube and bevel gear housing likewise have been increased in strength. Another improvement in the construction of the rear axle is the adoption of an oil-retaining device at the extremities of the housing, which make it possible to employ light oil in the gear casing, ensuring thorough lubrication at all times and also preventing any overflow

and possesses the same advantage of having its rear seat placed over the axle in such a way as to secure immunity from unpleasant rebound in covering rough roads.

**Requirements of the Radiator Fan.**

Radiator fans fulfil an important and at the same time trying function, since by reason of their high speed they are subjected to stresses that are far more severe than would be supposed when the light weight and simplicity of their construction is considered. On this account it is important to see that both the fan and its driving mechanism are kept in good order at all times. The bracket which holds the fan spindle to the forward cylinder must be of ample strength and securely adjusted, the bearing itself must be adjusted in such a way as to prevent undue lost motion, and, above all, the fan blades must be kept in line and, if of the attached variety, firmly secured to the central spider. The penalty of neglecting to keep the fan in condition is almost certain to be a damaged radiator and the amount of injury that can be done when the fan is allowed to get out of condition is out of all proportion to the extent of the fundamental difficulty.

**OWEN'S NEWEST OFFERINGS**

**Sumptuous Six-Passenger Berlin is One of Them—Rumble Roadster with Closed Front is Another.**

After originating what is in many respects a most striking form of automobile it is natural that the Owen Motor Car Co., of Detroit, Mich., should proceed with the construction of other types that are both unusual and progressive. The characterization applies particularly to the new Berlin, which takes the place of the ordinary limousine in the Owen line. If it were not a much older pattern the Berlin well might be termed an outgrowth of the closed front touring car of present popularity. As it is it classes with that form of body

and corner lights, bouquet holder, toilet and card cases and mirror. Drain strips over the doors protect the entrances from dripping water in wet weather, while antirattling devices prevent the vibration of the window sashes, whether open or closed. In respect to left hand driver's position, central arrangement of the gear shifting lever, long-stroke motor, and details of equipment, the specifications are the same as those for the standard touring car.

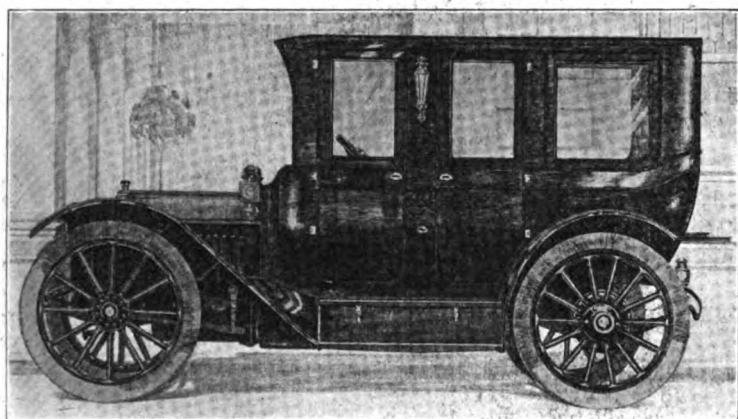
In addition to the Berlin body, not a little distinction is added to the Owen line by the adoption of the roadster style, a form of body that may be had with either single or double rumble equipment for the rear, flat back, or with just a hamper in addition to the gasoline tank and spare tire carrier. In this machine, the same general form for the front seat is employed as is used with the touring car, even to the

**URUGUAY A GROWING MARKET**

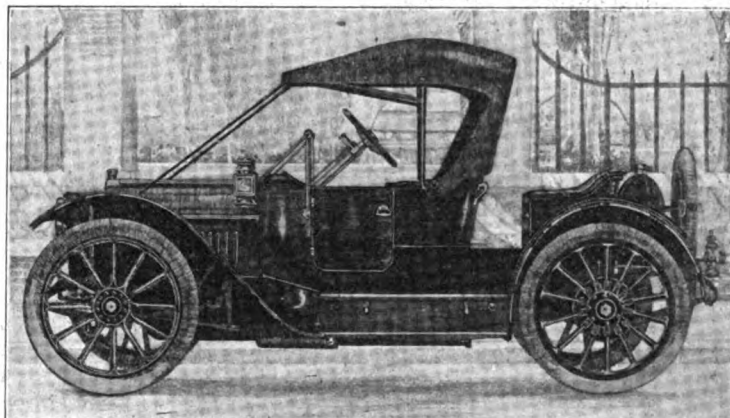
**American Consul Outlines the Types of Car that Are Wanted—Methods that Will Assist Their Sale.**

The steady increase in the number of importations shows that this is becoming a good market for the sale of automobiles, says Consul Frederic W. Goding, of Montevideo, Uruguay. Although the machines usually purchased have been high priced here, there is a growing demand for cheaper grades of strong and simple construction. American manufacturers who desire to enter this market should build their machines along the following lines:

Voiturette for two persons, arranged with two movable seats behind, two cylinders,



NEW OWEN BERLIN SEATING SIX PASSENGERS



NEW ROADSTER MODEL WITH CLOSED FRONT

very nicely, since it fulfils several of the very purposes for which the closed front has been developed.

The new Berlin is more than merely a closed front limousine, just as the true flush sided touring body is more than an ordinary touring body with front door equipment. It is designed as a complete car body from end to end, and it thus marks a diversion from the rigid precedents of the carriage makers more or less in the direction of the Pullman type of railway coach. As the accompanying illustration shows, the great length of body enclosure, the flat roof, the three rectangular windows and the absence of prominent mouldings render the appearance of the vehicle decidedly novel.

In appointment the vehicle is quite as striking as in general appearance. The side windows all are arranged to drop into wall pockets, thus rendering the car practically an open one upon occasion. The wind shield is of the vizor type, its upper section opening outward at an angle, while the entire body can be thrown into a single compartment by lowering the glass partition that separates the front and back sections. The equipment is complete in every respect and includes electric dome

use of side doors. This feature gives the machine a most unusual appearance, and is warranted by the same arguments that led up to the adoption of the closed front touring style. With the double rear rumble, and full equipment, including top and wind shield, the roadster is one of the most radical in appearance yet produced, without at the same time being in the least freakish or extravagant.

**Lost Motion in Flexible Couplings.**

To obviate difficulties arising from lost motion in the flexible couplings which commonly are introduced into the driving gear of magnetos and water pumps on well made cars, it is possible to introduce a simple form of spring drive at slight expense. In some instances, the spring itself may be made to serve the purpose of the flexible connection, but where an Oldham coupling or universal joint is employed, a light spring may be added outside the coupling in such a way that it will take up all slack and prevent the connecting parts from clattering. Besides eliminating a source of noise, this arrangement will do away with certain minute, though occasionally troublesome, uncertainties in the timing when applied to the magneto drive.

12 horsepower, double ignition of any standard system, two or three speeds, two brakes, water cooled, two kerosene and two acetylene lights; height from the ground to the motor protection box about 14 inches, with a forward projecting top. Price f. o. b. New York, \$500 to \$800. Tonneau of 25 horsepower, four cylinders, four seats, double ignition of any standard system, three speeds, two brakes, water cooled, light and top over four seats, glass shield in front, normal height, gage of wheels 1.4 meters (55.1 inches). Price f. o. b. New York, \$800 to \$1,100. Double phaeton (touring car), 25 horsepower, otherwise same as above. Price, \$1,000 to \$1,400. Coupe for two persons with direction within, special type for physicians, 18 to 25 horsepower. Price reasonable.

The principal requirements are strong construction of all parts, especially the springs and axles; interchangeable pieces in double pairs; simple construction; easy access to all parts of the machine so as to dispense with the services of a chauffeur; certain concessions with liberal terms to agents.

Strong construction is demanded, owing to the rough granite block pavements and 15 per cent. grades. For the voiturette a

minimum height of 35 centimeters (13.78 inches) is imperative because the country roads are rough, with conditions which debar a low machine. An apron should protect the parts below from water and mud. Complaint has been made as to the quality of the axles and springs in the few

would be prompted to decide on buying from such a deposit.

The American machines would have the competition of those made in France, Germany, Italy and Great Britain, which are now well established, and as the experiment of introducing a new make is both

of securing a fair percentage of sales for American automobiles in this country in the course of time.

#### To Keep Dust Out of Bearings.

Spring oil cups, of the sort such as frequently are employed on the shackles of

### HENRY FORD AND HIS SALES STAFF GATHERED AT DETROIT



Twenty-four of the branch managers of the Ford Motor Co. were gratified to learn last week, during their annual three days' convention in Detroit, that their business for the last year had reached \$14,000,000, which amount is exclusive of the transac-

tions of direct dealers. Despite the large total, they guaranteed to exceed that amount the coming year. The morning meetings of the convention were devoted to business, leaving plenty of time for pleasure, of which there was no lack. Luncheon

was served the first day at the Hotel Pontchartrain, the second day at the Penobscot Inn, and the third day at the Lone Cabin Inn. Afternoons and evenings were given to an inspection of the new Ford factory, yachting and theatre party and dinners.

American machines that at present are found in use.

A strong inducement for the people here to use American automobiles would be the arrangement to have a full assortment of such parts as are most liable to wear out or break, and to have such parts interchangeable. Should intending purchasers know that their machines would be repaired and broken parts replaced without the necessity of ordering from abroad they

tedious and expensive, the risk of such a move should be borne equally by manufacturer and agent. The best plan to pursue to win trade is to perfect satisfactory business arrangements with a reliable firm here and send the first automobile on consignment to be paid for when sold (within a reasonable time), as has been done in a number of instances with success. Should such a plan be followed the agent would push the business, with good chances of

suspensions and occasionally on the steering linkage of light cars, require to be wiped free of dust before being filled. Otherwise it is practically certain that the lubricant will wash into the bearing a certain amount of grit. It also is important to see that the caps or spring-controlled valves that close the opening under ordinary conditions are in working order, so that they will fulfil their proper function in protecting the bearing surfaces.



## NEW YORK HAS BUT 56,000 CARS

Count Made Possible by New Law Proves Disappointing—Number of Chauffeurs, too, Falls Short of Many Estimates.

According to the returns of the new Calan law, there are 56,000 motor cars in New York state and about 20,000 chauffeurs, these totals being made public by Secretary of State Koenig on Tuesday last, the law now being in full effect.

The number of cars which are thus disclosed to be in use is considerably less than even the conservative estimates. Under the old law, which had been in effect some 10 years, there were 109,000 registrations, and though many of these represented cars that long since were consigned to the scrap heap and many more represented cars which had changed hands, one or more times, it was not anticipated that they accounted for practically 50 per cent. of the total. The number of chauffeurs employed in New York always was grossly exaggerated, and the 20,000 now carried on the state's book will serve to revise many estimates, some of which placed the number as high as 50,000.

The receipts from all sources under the new law have been \$325,000, which sum is very disappointing to Secretary Koenig, who reckons that the full year of 1907 will bring in only about \$750,000, or about half the annual revenue which he expected would accrue. It also naively is remarked that "the cost of administering the new law is much heavier than was anticipated," which means that after paying the political appointees there will not be much left for road improvement, to which the law requires that the revenue, after paying expenses, be applied.

### Roadside Remedy for Slipping Clutch.

As a temporary, though drastic, remedy for a slipping clutch the leather may be raised off the surface of the metal cone at points between the rivets by inserting match ends or wooden toothpicks beneath it. The hint is applicable in general only where the leather is so worn that thorough cleansing of oil and grease, and even the application of rosin will not cause it to engage properly. It possesses the advantage that it can be applied at the roadside without any further delay than that necessary to lift the floor boards and depress the clutch pedal.

### Freakish Effects of an Accident.

One of the most peculiar accidents to motorists that have happened in some time occurred last week at Richmond, Ind., when Oliver H. Hampton, of Fountain City, was trying to cross the tracks of the Pennsyl-

vania railroad as the "flyer" came through. The automobile which Hampton drove had reached the first rail when the express struck it. The front wheels, engine and hood were ripped off cleanly, and although the car tilted forward Hampton retained his seat while the train whizzed by, a few inches from his face. He was too paralyzed to move, except to grip tightly the sides of the seat, and it probably was that what saved his life.

### Truck that Attacked a Navy Yard.

What damage a five-ton truck can do when it runs wild was demonstrated last Thursday in Brooklyn, N. Y. One of the heavy trucks used by Austin, Nichols & Co., wholesale grocers, and loaded with something like three tons of evaporated apples, was coasting down the long incline on High Street. Suddenly the connection between brake and brake pedal broke and the truck gathered speed. Finding it impossible to stop the heavy machine and seeing it headed straight for the brick wall of the United States Navy Yard, the chauffeur jumped in time to get away from the crash which happened an instant later. The truck went along clear through the three-foot wall, tearing a ragged hole 20 feet wide and brought up against one of the inner buildings of the Navy Yard. The hood of the truck was smashed, but the main body of it and its cargo were unharmed.

### Why Smolowitz Can't Change Name.

Mathias Smolowitz, a Roumanian automobile dealer of 3850 Park avenue, New York City, is having trouble with his name, which he wishes to change to Seeman. Justice Finelite, of the city court, who has a name of his own, denied the application and says Smolowitz must keep his old label, for it is honorable, readily pronounced and easy to spell. Besides Smolowitz is married and has a number of little Smolowitzes.

### White Plains Mixes Cars and Horses.

Spencer Wishart, of New York, again bobbed up conspicuously as an amateur racing man last Saturday, at the wind-up of the annual Westchester County Fair at White Plains, N. Y. He won the 20 miles free-for-all, driving an S. P. O. Thomas Maxwell in a Maxwell captured the 20 miles event, and A. J. Crawford in a Hudson the 10 miles contest. The motor races were so subordinated to the horse trotting that they were almost lost in the shuffle.

### Regal Plugger Begins Long Journey.

In its guise as a "good roads apostle," the Regal "Plugger," with Leo Sherard at the wheel, began its 10,000 miles "All Southern Tour" on Thursday last, 15th inst. It left Norfolk, Va., in a pouring rain but with a large escort.

## HOW PRICES WENT UP AND DOWN

Statistics Showing that Average Price of Cars Was Highest in 1907—Cause that Contributed to Reduction.

Based on the records of the sales of gasoline cars manufactured under the Selden patent, the statisticians of the Association of Licensed Automobile Manufacturers have evolved a chart showing the average price of American cars during the past eight years and indicating that from \$1,133.37, the average in 1903, the price went up by progressive steps until it reached the top notch, \$2,137.56 in 1907. Since that time it has decreased until the first six months of 1910 shows \$1,545.93 as the average retail list price of cars, the rise and fall being made apparent by the following tabulation:

1903 average price	\$1,133.37
1904 " "	1,351.45
1905 " "	1,609.79
1906 " "	1,853.93
1907 " "	2,137.56
1908 " "	1,926.94
1909 " "	1,719.93
1910 (to July 1st)	1,545.93

The gradual reduction since 1907—the so-called "panic year"—is not the result of any radical reduction in the price, but was brought about by the great increase in the manufacture and sale of machines selling at \$1,500 or less. In the early days the production was limited and in 1905, when the industry really began to expand, a car at less than \$2,000 was rare, while now the greatest volume of business and the greatest number of machines are sold at less than that figure. There of course has been a tremendous increase in the making of what are termed the moderate priced cars, and a normal and healthy increase in the number of the higher priced machines produced.

The figures, the A. L. A. M. statisticians point out, indicate that the trend in manufacturing has been each year to give more for the same list price, than to make any great cut in the selling figure.

### Book that Deals With Electrics.

There is something essentially domestic about the electric passenger car; it seems to belong in the same general class with a well-made and useful piece of furniture in points of utility, attractiveness and comfort. The idea is emphasized in the new electric vehicle catalog just issued by the Studebaker Automobile Co., South Bend, Ind. The booklet, which is beautifully printed and illustrated, enlarges upon the broad usefulness of the electric besides adding a word as to the skill and experience of the Studebaker designers in producing suitable types. Model "17," the



leader of the line, it is explained, is built with independent chassis so that it is adaptable to a variety of bodies, all of which are constructed on the interchangeable plan. A chapter also is devoted to the

and in the utility type of motor vehicle, whatever its specific application, the Knox Automobile Co., Springfield, Mass., has printed a 40-page commercial vehicle catalog that contains a large amount of use-

trucks is explained and illustrated as are the specifications and applications of a surprisingly large number of types suitable for municipal uses in fire, police and hospital service, trucking in all its forms and

### THE MEN WHO MAKE THE MARKET FOR HARTFORD TIRES



HARTFORD RUBBER WORKS CO.'S STAFF PRESENT AT ANNUAL CONFERENCE

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Business and pleasure were agreeably combined last week when the branch managers and salesmen of the Hartford Rubber Works Co. held their annual conference at the factory in that city. It occupied three days and opened with an address by J. D. Anderson, the president, after which two sections were formed for ses-

sions, the branch managers meeting with the executive officers, while the salesmen used the factory dining room for a convention hall, along with the heads of departments. The manufacturing processes were shown to the visitors, who had their first opportunity to see aeroplane tires in the making, as well as those for automo-

biles and bicycles. A dinner for the party was given the first evening at one of the local hotels. Business sessions also occupied the second day, while the third was devoted to an outing and dinner at Morris Cove. The trip was made by automobiles, which were equipped, of course, with Hartford tires.

subject of home charging with the aid of the alternating current rectifier.

#### Concerning the Knox Commercials.

For the benefit of those who are interested in the problem of motor truckage

ful information condensed within a relatively small amount of space. Besides enunciating briefly and forcefully the principles that are recognized as governing the commercial vehicle problem, the substantial mechanical construction of the Knox

also for the purposes of omnibuses and sightseeing wagons.

"The A B C of Electricity." Price, 50c. The Motor World Publishing Co., 154 Nassau street, New York City.

## MOTOR WAGONS FOR NEWSPAPERS

**Typical Service Rendered by One of Them in Baltimore—Long Hours and High Speeds Necessary.**

What service a motor wagon can render to a newspaper is well illustrated by the case of the Baltimore Sun, which since June 1st has used a White, 1500 pound delivery wagon for the delivery of papers to the sub-stations in the suburbs of that Maryland city.

In handling the early edition of the paper, the White truck is in service from

that there are few cities in the country with streets so hilly and so hard on tires as those in the city of Baltimore. The truck has averaged 12 miles to the gallon of gasoline. There have been no repairs necessary during the first two and one-half months of service.

### Hearst Promoting Chain of "Truck Tests."

Following the example of the Philadelphia North American in arranging a commercial vehicle test from the Quaker City to Atlantic City and return, William Randolph Hearst has determined to take enough respite from politics to conduct a series of similar affairs in the several cities where his newspapers are more or less assisting in

## TOURING TEST FOR ELECTRICS

**Two of Them Being Piloted Over 1,000 Miles of Much Mixed Going—Edison Battery Involved.**

While the electric vehicle ordinarily is not accepted as suitable for touring purposes, two machines of this class at present are being put through an extensive test that constitutes the most ambitious so far undertaken in the long series connected with the exploitation of the new Edison battery. The two machines, one a Bailey and the other a Detroit, each of which is equipped with a 40-cell nickel-iron battery, are covering the route of the so-called Ideal tour through the New England states. Twelve days have been allowed to complete the test, and to equalize the effect of the grades, the two machines are being sent over the 1,000 miles course in opposite directions.

The Bailey, driven by G. W. Langdon, F. V. McGuinness acting as observer, left New York last Saturday morning, 18th going by way of Waterbury, Lenox, Manchester and Bretton Woods to the Maine coast, and thence back to New York. The Detroit, which is being driven by R. E. Darling, with E. R. Alexander as observer, is running by way of Briarcliff, Hartford, Springfield, Worcester and Boston. The schedule laid down calls for at least 100 miles a day over the medium dirt roads, of which there are many miles outside the state and city boulevard stretches, while, to make up for delays in climbing the Franconia Notch, in the White Mountains, and the difficult Peru mountain in the Green Mountain range of Vermont, the better roads must be taken at the rate of 150 miles a day.

One of the most notable in the series of Edison tests was a run of 201.6 miles on a single charge, which was made in the vicinity of Cleveland, Ohio, on August 30th. In making this long-distance run, which is called a record for a single charge, an average speed of 12¾ miles an hour was maintained.

### Safety Loops for Shaft Driven Cars.

All shaft driven cars should be provided with safety loops to prevent the torsion rod, or tube and the driving shaft from dropping to the ground in the event of a broken connection or a disconnected coupling. The device is one that is simply and cheaply applied and that may save the overturning of the car in the event of an otherwise minor and improbable mishap. Owners of such cars as are not already equipped in this way by a thoughtful manufacturer may install the arrangement without difficulty. It constitutes an efficient accident insurance in itself.



WHITE DELIVERY WAGON IN THE SERVICE OF A BALTIMORE NEWSPAPER

1:00 to 8:00 o'clock in the morning during the seven days of the week, while in conveying the afternoon papers to their various destinations the truck works from 2:00 o'clock in the afternoon until 8:00 or 10:00 o'clock at night, with the exception of Sunday only.

In this car, deliveries are made to sub-stations and carriers in the city and suburbs, and the mail is delivered to and from the postoffice. The machine is in daily service from 14 to 16 hours.

"Conservatively speaking," says J. W. Magers, circulation manager of the Sun, "the car does the work of two teams on short hauls and would displace three teams on long hauls—by long hauls we mean those that would exceed eight city blocks. The service this car has given has been a pleasant surprise to us and the more so that we haven't had any trouble at all as yet, and we have been giving it considerably harder service than we had anticipated. Even the editorial department has found it of service on a couple of occasions in making rush runs to fires at night."

During the eight morning trips the truck has run as high as 40 miles an hour, while it generally makes the excellent average of 25 miles an hour during the day. This mileage is exceedingly good considering

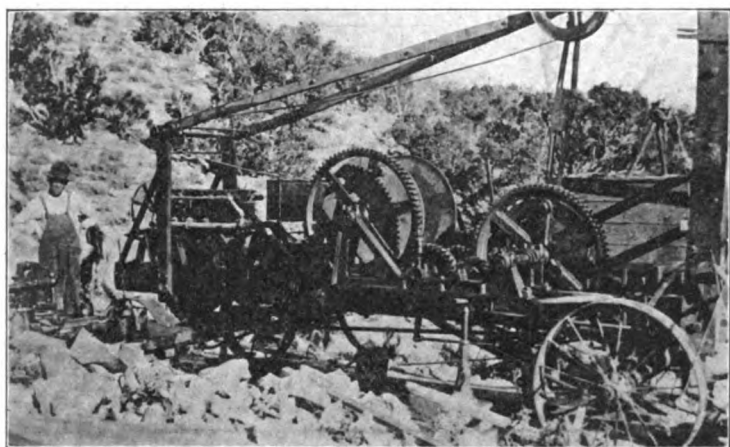
the moral uplift of the masses. The first affair of the sort, which was announced several weeks since, and which will be given under the auspices of the Boston American, October 14-15, from the Hub to Newburyport and return, 65 miles, will be followed by a similar stunt in New York. The New York American will stand sponsor. As Hearst's papers in Chicago and Los Angeles have discovered that there is a "yearning" or "demand" on the part of the business men of those cities, it is evident that "truck tests" shortly will be announced in those localities.

### Carrying Oil Cans Under the Hood.

It is a simple and wise plan to install a little tray adapted to receive and retain two or three oil cans in an out-of-the-way corner underneath the hood. Some manufacturers take pains to see that their cars are so provided in the beginning, but in cases where the point has been overlooked by the builder it is possible to fit up a suitable tray at small cost. The particular advantages are that the oilers always are close at hand when needed, that the oils are kept warm in winter, that the cans are protected from injury and that there is no risk of their spilling the lubricant over tools and equipment in the kit.

### Hudson Owners Get Cash Prizes.

In competition with 485 other Hudson owners, A. P. Pearson, Dorchester, Mass., has been awarded first prize, \$150, by the Hudson Motor Car Co., Detroit, Mich., for the best story and photographs in the Hudson "experience run," held July 15-16. The contest was open to Hudson owners throughout the country, and prizes of a total value of \$950 were offered for the most unique photographs and stories of runs sent in. Four hundred and eighty-six cars, 18 of them driven by women, took part in the contest, and covered on an average 150 miles each. One of the conditions of the contest was that no tools be carried. None of the 18 women contestants won prizes, but as balm for their disappointment each received a cash bonus of \$25.



HOW AN AUTOMOBILE ENGINE WAS USED FOR DRILLING AN OIL WELL IN UTAH

Next to Pearson, the five highest prize winners were the following: Second, \$100, R. W. Hyde, Duluth, Minn.; third, \$50, J. M. Heffner, Mason City, Ia.; fourth, \$25, William Kemble, Kingston, N. Y.; fifth, \$20, A. P. Perry, McIntosh, Wash.; sixth, \$15, E. L. Jelks, Quitman, Ga.

Fourteen prizes of \$10 each were distributed among the following: H. Brewster Willis, New Brunswick, N. J.; W. B. Dobson, Alpena, Mich.; A. F. Boylan, Dennison, Ia.; G. W. Schwarzwald, Chichester, N. Y.; John Johnson, Chappell, Neb.; P. H. Combes, 3685 Olive street, St. Louis, Mo.; T. W. Brotherton, Jr., 4501 Finley avenue, Los Angeles, Cal.; E. Hoen, Fresno, Cal.; R. W. Peterson, 431 College avenue, Santa Rosa, Cal.; A. W. Wall, Walpole, Mass.; Donald McFadon, 511 Savage Schofield building, Tacoma, Wash.; Dr. F. J. Harter, Herkimer, N. Y.; Thomas M. Purves, Anthon, Ia.; G. M. Jones, 428 Washington street, Atlanta, Ga.

### Predicts Abandonment of Oiled Roads.

Spencer Miller gave a talk last week before the New England Society of Orange, N. J., during which he declared that it will not be long before the towns and cities of the United States which have been using oil to lay the dust on rural highways will wish they had never done it. He said

the oil kills the lawns and foliage along the sides of the highways where it has been used. "In Europe," he added, "the evil effects of using the oil are already sadly apparent. The oil-laden dust is picked up by the automobiles and scattered to the foliage and lawns, which it will kill."

### Uses Automobile Motor to Drill Well.

That a continuous circulating air current is not absolutely necessary to make a Franklin air-cooled motor perform its work satisfactorily, even in a temperature which occasionally reaches 135 degrees Fahrenheit, has been discovered by John R. Steele, at New House, Utah. The latter, who is an engineer in charge of oil-drilling operations at New House, was in a quandary as to what machinery to use for the drilling.

Light weight was imperative on the high mountains, and, as can be seen in the accompanying illustration, a six cylinder model 1907 automobile motor was chosen for the work. With the engine the transmission is used because of the difference in the speed and power required. The capacity of the drill, using core tools, is 800 feet with a six-inch core, and with churn tools a 12-inch hole may be driven to a depth of 400 feet. The ignition is by magneto, and the necessary flexibility of the engine is obtained by means of the change gear.

### Horsemen, as Usual, Object to Lamps.

Wholesale protests are being made by team owners and drivers to the commissioners of the District of Columbia, who have determined that lights must be carried on all vehicles. The principal objections seem to be over the expense of the lamps and oil. The horse interests, however, used a good deal of ingenuity in bringing up odd possibilities. Among other things they asked how they could hang a lamp on a load of hay, or at the rear of a dump cart. Nor was the danger of a lamp on a load of theatrical scenery forgotten. Figures presented showed, however, that twice as many accidents from collision fell on the horse-drawn vehicles as upon automobiles.

### Use Guns to Check Highway Improvement.

Road building operations on the Hudson road, under the direction of the Automobile Club of St. Paul, received a severe jolt a few days ago, when a score of residents of the village of Oakdale, Washington county, Minnesota, took exception to the way the work was being done and resorted to shotguns to stop it. The club is now threatened with a civil suit for \$200 damages. That is the amount which the citizens declare will be necessary to expend in order to put the highway into the condition it was before the club began work.

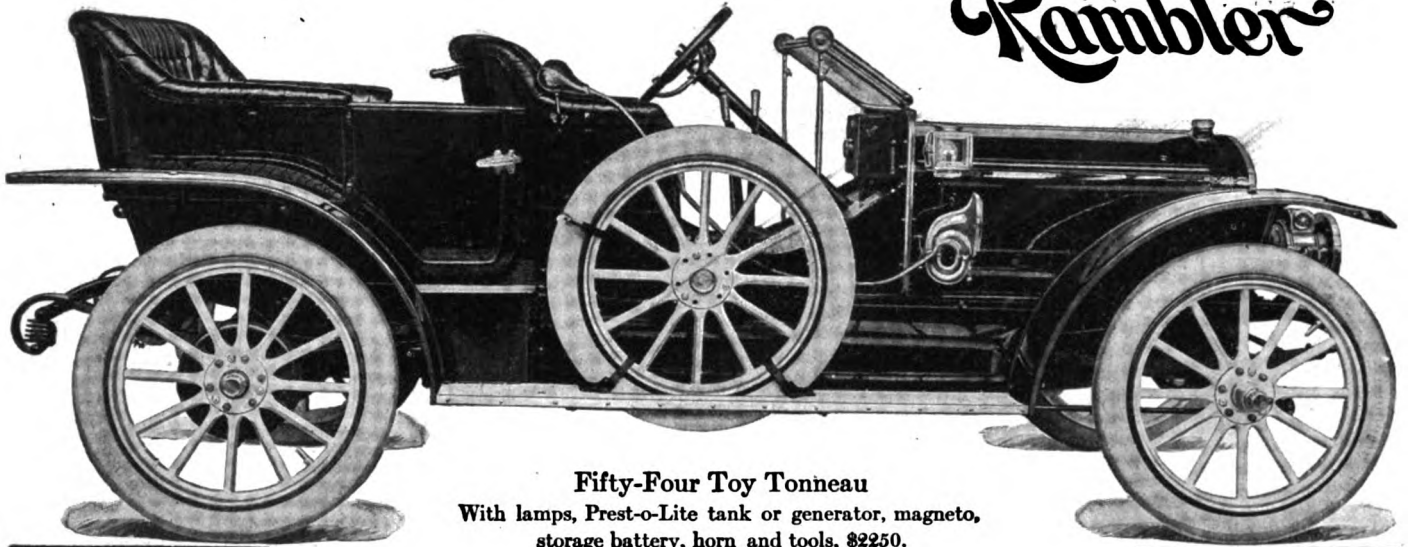
The Hudson road is the most direct route to the Anchorage, the country home of the automobile club, located on Lake St. Croix. Early this season club officials hinted to Washington county officials that

unless the road to club house was improved the club would be forced to seek another location, owing to the fact that the bad roads were keeping members away from the resort. The officials took the tip and at once ordered farmers along the highway to work out their road taxes. To help the movement the commissioners put a grader on the road, which proceeded to scrape the sod off the sides and put it in the middle of the thoroughfare. In due time the weeds began to grow in the middle of the road. They thrived on the turf which had been placed there by the grader. The automobiles had to take the sides of the road, and owing to the grade made for drainage the machines often traveled at perilous angles. Accordingly the club took a hand at making improvements on its own account, under the recommendation of the state highway commissioner, who was pleased with the progress made, if his constituents were not.

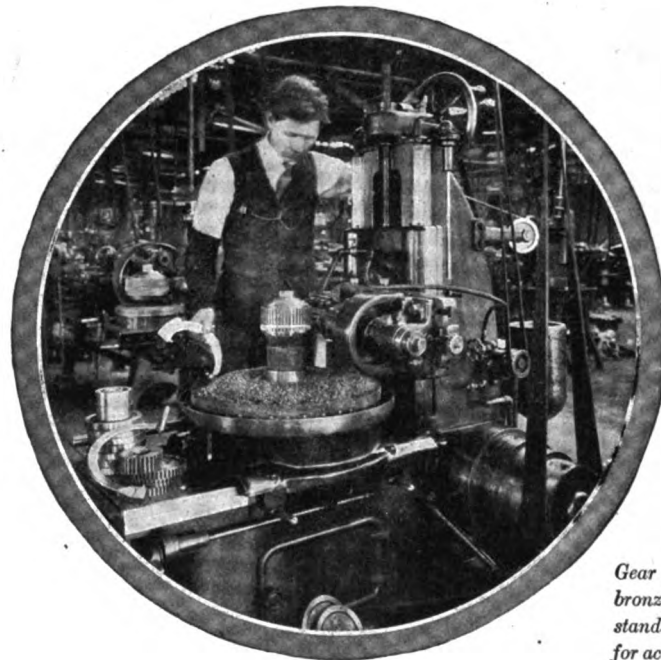
### Michigan Motorists Form a Club.

Thirty-five motorists of Ludington, Mich., have formed the Mason County Automobile Association and elected A. A. Keiser president. The other officers are: W. L. Hammond, secretary, and J. D. Hogstraet and J. F. Rohra, members of the executive committee.

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## RECENT PATENTS.

966,510. Brace for Auxiliary Vehicle Springs. William Young, St. Louis, Mo., assignor to Supplementary Spiral Spring Company, St. Louis, Mo., a Corporation of Missouri. Filed March 1, 1909. Serial No. 480,619.

1. In a device of the character described, the combination of a vehicle body, a main spring of the leaf variety, an auxiliary spring of the helical type, a brace attached to a brace point, and means for attaching said brace to said helical spring consisting in a forked end for said brace and a bolt passing through eyes in said fork and said helical spring, one prong of said fork lying adjacent to one side of said helical spring and the other prong thereof lying adjacent the other side of said helical spring.

966,519. Motor Vehicle. Alanson P. Brush, Detroit, Mich. Filed Nov. 18, 1908. Serial No. 463,149.

In an automobile, the combination of a frame, a motor fixed to the front end thereof, a longitudinally extended main shaft driven by said motor, a rear axle structure which includes a casing having a forwardly extended tubular torque member which is removably connected with the differential gear casing of the rear axle structure and is enlarged near its front end, transmission controlling mechanism mounted in said enlargement, and two transmission shafts mounted in said torque member and adapted to be variously connected by said controlling mechanism, one of said shafts being operatively connected with the rotating mechanism of the rear axle structure and the other of said shafts having a telescoping universal joint connection with the main shaft.

966,586. Automobile Front Axle with Drive. Andrew O. Nordquist, Axel R. Nordquist, and Carl W. Nordquist, Minneapolis, Minn. Filed June 2, 1909. Serial No. 499,656.

1. The combination with an axle and a sprocket wheel loosely mounted thereon, of a clutch slidably mounted on the axle, a steering knuckle, a shifting collar for said clutch, means connecting the collar and the knuckle, and means for shifting the support of the collar, as and for the purpose set forth.

966,674. Elastic Vehicle Tire. William H. Eynon, Cleveland, Ohio. Filed Aug. 14, 1909. Serial No. 512,826.

1. An electric vehicle tire, comprising a tire body terminating in laterally extending tapered tread portions terminating in relatively thin tread wings projecting beyond the sides of said tire body.

966,722. Brake for Road Vehicles. William Herbert Weight, Bishopton, Bristol, England. Filed Dec. 15, 1909. Serial No. 533,182.

1. In a hydraulic brake system for road vehicles the combination with a brake ram cylinder carried by steering wheel of a vehicle, and a main pressure device, of a resilient tube connected at opposite ends to said cylinder and pressure device and a swivel joint interposed in the length of said tubing and aligned with the pivotal axis of the steering wheel.

966,785. Automobile Wind Shield. Frank W. Aurig, Philadelphia, Pa., assignor to Thomas S. Shibe, Philadelphia, Pa. Filed Feb. 19, 1910. Serial No. 544,743.

1. In a wind shield, a sash, a movable frame swinging thereabout, clamp members upon the sash and comprising concentric grooves and ribs and co-operating clamp members comprising concentric ribs and grooves interfitting with the members upon the sash and having the taper upon one side only.

966,864. Pneumatic Supporting Means. Gustaf von Schantz, New Britain, Conn. Filed Mar. 24, 1910. Serial No. 551,273.

1. An apparatus of the class described, comprising a pneumatic support having two relatively movable members, a low pressure tank in communication with said support, a check valve between said low pressure tank and support and closable toward said low pressure tank, a high pressure tank in communication with said support, and a check valve between said high pressure tank and support and closable away from said high pressure tank.

966,874. Charging Device for Pneumatic Tires. Fred O. Warrick, Nuremberg, Germany. Filed March 9, 1909. Serial No. 482,323.

A valve comprising a valve casing, a ball valve therein, an insertion piece in said casing extending from the bottom of the casing to a point adjacent the valve seat, said insertion piece dividing the bore of the valve into channels so that the air current passing through the valve is set in a whirling motion, said whirling motion turning the ball valve and cleaning the same from adhering dust particles.

966,972. Internal Combustion Engine. Sigurd Wiebe, New York, N. Y., assignor of one-half to John C. Quinn, Philadelphia, Pa. Filed Oct. 2, 1905. Serial No. 280,888.

1. In an internal combustion engine, the combination with a working cylinder provided with two annular chambers concentric therewith, and with separate inlets from said chambers to the interior of said cylinder, the one arranged above the other, of a piston in said cylinder, arranged in its stroke to uncover said inlets, one of said chambers communicating with the said cylinder at the rear of said piston, and having an air inlet, a charging cylinder and piston communicating with the other of said chambers, and a mechanically controlled exhaust for the working cylinder.

966,993. Detachable Wheel Rim. Thomas W. Broomell, York, Pa., assignor of one-third to George A. Lichtenberger and one-third to Charles H. Bear, York, Pa. Filed Nov. 28, 1908. Serial No. 464,952.

In a wheel, the combination of a felly having opposed square ends entirely sep-

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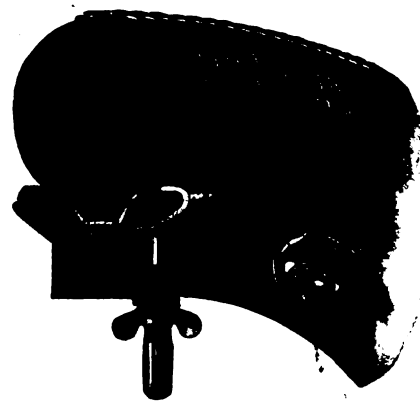
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arated by an intervening space which forms a gap extending radially throughout the thickness of the felly, a hoop surrounding and secured on the felly and having an inwardly depressed portion disposed longitudinally in said gap and extending radially throughout the thickness of the felly and also having the ends of said inwardly de-

pressed portion arranged at right angles to the felly and abutting against the similarly arranged or square felly ends throughout the thickness of the felly, whereby said inwardly depressed portion virtually forms a segment of the felly, a split rim provided with means for holding it against lateral movement on the hoop and also provided

with means for engaging a tire, oppositely-threaded lugs fixed to the end portions of the rim and disposed and movable toward and from each other in the said inwardly depressed portion of the hoop and longitudinally in said depressed portion and having oppositely-threaded portions engaging the threaded lugs of the rim.

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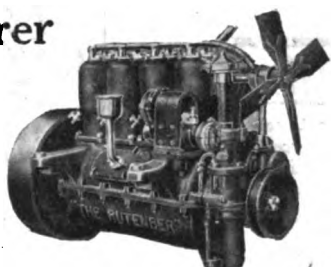
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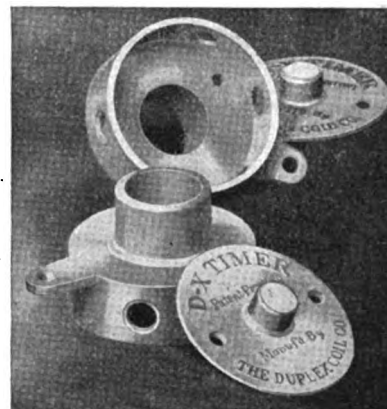
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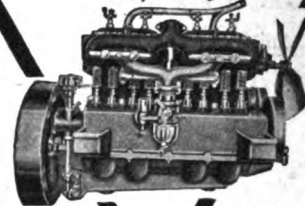
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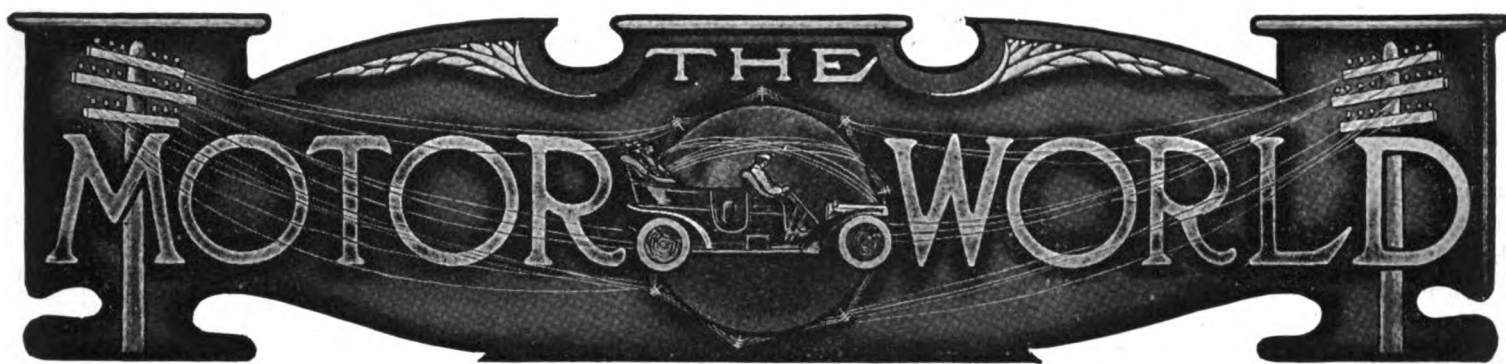
Between CHICAGO, ST. LOUIS and  
KANSAS CITY choose  
"The Only Way"

## Chicago & Alton R. R.

Electric block signals, electric search head-lights,  
electric lighted trains, over a completely rock-  
balanced roadway underlaid with boulders and  
underdrained with tile.

A Railroad with Character

GEO. J. CHARLTON R. J. McKAY  
Passenger Traffic Manager General Passenger Agent



### CAN'T COMPEL PROFIT-SHARING

**Superintendent - Stockholder Tries to Do  
So by Receivership Proceedings but  
Fails—Wanted 900 Per Cent.**

Despite the application of George De Fevre, a stockholder and former superintendent, there will be no receiver appointed for the A-Z Co., of New York, nor will the courts assist de Fevre in holding his job.

The A-Z Co. manufactures radiators and other automobile parts, and has proven such a profitable institution that De Fevre considered that he was entitled to a share of the earnings. His demand being refused, he applied for the appointment of a receiver as one way of obtaining what he sought, but on Monday last, 26th inst., Justice Bijur, of the New York Supreme Court, denied the application. De Fevre also sought the court's aid to prevent his displacement as superintendent of the company, but Judge Bijur likewise refused to issue the injunction for which De Fevre prayed and which would have served this purpose.

De Fevre holds 150 shares of A-Z stock, the remaining 350 being held by James E. Woodbridge, president of the company, and by his son, Robert, who is secretary. In his petition the plaintiff alleged that they made 300 per cent. profit during each of the past three years, and demanded that he be paid 900 per cent. on his holdings valued at \$1,500. The Woodbridges, he charged, had obtained large sums from the business, and are threatening to fix their salaries at \$10,000 each per year, while he had to worry along on a wage of but \$35 per week.

In their answer, the defendants said that De Fevre got all his stock free because of his knowledge of the business, and that he should consider himself fortunate to have secured ownership of fifteen-fortieths of the stock of a corporation which has assets

of \$60,000 and liabilities of less than \$5,000 without contributing a cent to the capital. They admitted that the corporation has made money but denied that the profits amounted to 900 per cent. in three years. They declared they offered De Fevre \$4,000 for stock having a par value of \$1,500, and that the litigation was inspired by the hope of compelling them to purchase his stock at an exorbitant price.

The court accordingly dismissed the proceedings.

### Eagle Takes Over Grossman Business.

On October 1st the Eagle Co., of Newark, N. J., will take over the wind shield and spark plug business of the Emil Grossman Co., of New York, and, in fact, will take over Grossman himself; he will become sales manager of the Eagle Co. and continue to direct the marketing of the wind shield and the "Red Head" spark plug, which he so quickly made a factor in the trade. The Emil Grossman Co. will go into liquidation and wind up its affairs. As the Eagle Co. manufactured the wind shields and plugs for Grossman, its acquirement of the selling end of the business is not such a radical step as may appear on the surface. The Eagle Co. is controlled by the Standard Co., of Torrington, Conn., a concern of great strength and resources. The connection is so close that henceforth B. S. Keefer, secretary of the Torrington establishment, will spend several days of each week in Newark assisting the development of the spark plug and wind shield business, which it is the intention to expand on a large scale.

### Larzelere Forms Company to Build "Six."

H. B. Larzelere, for five years sales manager of the Chadwick Engineering Co., Pottstown, Pa., has resigned that position and organized the Nance Motor Car Co. in Philadelphia, of which he will be president and general manager. N. A. Adams, who also was connected with the Chadwick company, will be the sales manager of the new concern, which purposes producing a popular priced six cylinder car.

### SUES OAKLAND FOR ITS \$85,000

**Pontiac Buggy Co. Wants Balance Due for  
Its Building—General Motors Involved  
as Oakland's Indorser.**

Because the Oakland Motor Car Co., of Pontiac, Mich., which is a part of the General Motors organization, has failed to pay the balance due of the agreed purchase price of a factory building which it bought from the Pontiac Buggy Co., the latter company has instituted suit in the Michigan courts for the amount unpaid, \$85,000. The Oakland concern gave its notes for the amount of the purchase price, and as the General Motors Co. indorsed these notes it is made a co-defendant in the action.

While it was known that the Oakland company had not been traveling on the sunny side of Easy street, the filing of the suit caused some surprise, as the matter was viewed more or less in the light of a family affair, the Pontiac Buggy Co. having been owned by the late Edward Murphy and his associates who in turn formed the Oakland Motor Car Co. The building which was purchased from the Buggy company was of course made over to the General Motors Co. when the latter absorbed the Oakland establishment and the General Motors indorsed and became responsible for the notes which had been issued. It appears that the agreed price was \$125,000, of which but \$10,000 was paid in cash. Three notes of \$10,000 each were promptly paid, but three others, two for \$30,000 and one for \$25,000, which fell due on the 10th inst., were not met and the prompt institution of the suit followed.

Since it was filed, Hal Smith, one of the new trustees of the Oakland Motor Car Co., has asked for a year's extension of the notes, and a meeting of the Pontiac Buggy Co. has been called to decide whether or not the favor shall be granted. The notes did not bear interest, the Oakland company paying rental in lieu of interest.

## POPE'S PROSPEROUS CONDITION

**Annual Report Shows Handsome Increase of Sales and Profits—Good Example of Conservative Management.**

With a balance sheet showing sales amounting to \$4,010,199.14, which netted a profit of \$745,390.87, the annual report of the Pope Mfg. Co., Hartford, Conn., for the 12 months ending July 31, 1910, which just has been made public, should prove of steadying influence to the entire industry and serve to further dissipate the alarmist rumors which had been set afloat.

The Pope Mfg. Co. is one of those which "had been through the fire" and which had learned the effects of booms and the expensiveness of over-expansion, and its solid condition as disclosed by its report may be accepted as typical of the condition of practically all of the old and long established companies possessed of proud reputations and which have not permitted a display of industrial fireworks to lure them from conservative management.

The sales of the company represent an increase of \$1,166,458.53 over the sales for the preceding twelve months, but even this satisfactory state of affairs is enhanced by the report of President Pope that the company has borrowed no money, nor has it given any promissory notes whatever during the year, having been able to take advantage of all cash discounts.

"The entire product of the company for the fiscal year was sold and delivered some weeks before the end of the period and no manufactured goods were carried over into the new fiscal year, leaving a very clean and most satisfactory inventory of merchandise on hand," continues Mr. Pope, who, with an eye to the future, adds:

"While the prospect for business for the new fiscal year is most encouraging, the management believes, in view of financial conditions throughout the country, that the conservative policy it has followed should be continued and no material expansion should be considered, and by keeping the affairs of the company well in hand, it can take care of as much business as its plants can produce, or contract its production, if conditions demand, to a point of economy and financial safety.

"During the year the company has acquired by purchase an additional manufacturing property in the city of Hartford, to which several manufacturing departments have been moved, giving much needed additional room for operations besides excellent shipping facilities by rail, which were lacking and much needed before the acquisition of this additional plant. The company now owns and operates three plants; the main factory and the West Works (the new plant) at Hartford, Conn.,

and a factory at Westfield, Mass., the two Hartford plants being entirely devoted to the manufacture of automobiles and the one at Westfield to the manufacture of bicycles and automobile bodies. During the previous two years the company had manufactured a portion of its automobile bodies but it has extended that branch of its business so that it is now manufacturing

successfully and to the advantage and profit of the company all the bodies it requires.

"The manufacture of Public Service vehicles, such as ambulances, police patrol and fire emergency wagons referred to in our last fiscal report has increased and promises to be a considerable factor in the company's product in the future."

The Pope financial statement follows:

### EARNINGS FOR YEAR ENDING JULY 31, 1910.

Income from operations (after deducting manufacturing and producing costs, including charges for depreciation, current repairs, replacements and renewals to plant, administrative, office and selling expenses).....	\$664,496.35
Add—Miscellaneous earnings, including discounts, interest and royalties received .....	127,989.00
	<u>\$792,485.35</u>
Deduct—Miscellaneous losses and expenses including discounts, provision for losses on bad and doubtful accounts, paid and accrued internal revenue tax on income.....	47,094.48
	<u>\$745,390.87</u>

### Assets.

Real estate, buildings, plant, equipment, machinery, tools, patents, licenses and good will, July 31, 1909.....	\$5,194,835.16
Add — Net Adjustments.....	50,767.37
	<u>\$5,245,602.53</u>
Deduct—Unoperated machinery and tools, sold or scrapped..	2,207.97
	<u>\$5,243,394.56</u>
Add—Expenditures on additions and improvements, complete and in operation.....	\$280,736.82
In process of construction and installation.....	54,114.28
	<u>334,851.10</u>
	<u>\$5,578,245.66</u>
Deferred charges and prepaid expenses, including prepaid insurance and advance work on models for future production .....	100,308.56
Contract to be liquidated by deferred instalments.....	190,871.41
Inventories of materials, supplies, work in progress and finished product .....	\$854,660.45
Accounts and notes receivable (less reserves for bad and doubtful accounts) .....	273,578.60
Cash and cash items in bank and office, including accrued interest on bank deposits, and fund for payment of unclaimed dividends .....	557,945.09
	<u>1,686,184.14</u>
	<u>\$7,555,609.77</u>

### Liabilities.

Capital stock—Authorized and issued:	
25,000 shares preferred.....	\$2,500,000.00
40,000 shares common.....	4,000,000.00
	<u>\$6,500,000.00</u>
Less—Stock held in treasury:	
2,018 shares preferred.....	\$201,800.00
3,092 shares common.....	309,200.00
	<u>511,000.00</u>
	<u>\$5,989,000.00</u>
Reserves for replacements and accrued renewals to plant....	\$402,313.30
Reserves for current repairs.....	1,821.88
	<u>404,135.18</u>
Accounts payable, including accrued taxes, royalties, commissions and internal revenue tax on income.....	232,456.41
Pay rolls accrued.....	9,878.46
Deposits on orders.....	39,430.29
Unclaimed dividends .....	229.00
	<u>281,994.16</u>
Contingent liabilities .....	20,276.80
Surplus, July 31, 1909.....	\$482,866.76
Net earnings for year ending July 31, 1910.....	745,390.87
	<u>\$1,228,257.63</u>
Less—Dividends paid:	
On preferred stock for year ending July 31, 1909 .....	\$137,892.00
On preferred stock for year ending July 31, 1910 .....	137,892.00
On common stock.....	92,270.00
	<u>368,054.00</u>
	<u>860,203.63</u>
	<u>\$7,555,609.77</u>

**CHANGES AMONG THE TRADESMEN**

**Charles R. Stevenson Becomes Secretary of Thomas Company—Fosdick Sales Manager for Fiat—Other Shifts.**

Charles R. Stevenson, formerly of New York, has been elected secretary and auditor of the E. R. Thomas Motor Co., of Buffalo, N. Y. He also has been elected a member of the executive committee and will become one of the directors of the company. Mr. Stevenson for the last seven years has been a member of the firm of Miller, Franklin & Stevenson, business economists and public accountants, and has had to do with the work of introducing advanced methods of accounting and manufacturing in over two hundred concerns in all lines of industry. Previous thereto he was assistant metallurgical engineer of the Homestead plant of the United States Steel Corporation.

Harry Fosdick, former secretary of the Hol-Tan Co., of New York, importers of the Lancia car, has been appointed sales manager of the Fiat Automobile Co., of Poughkeepsie, N. Y., with headquarters at 1786 Broadway, New York City. Fosdick is one of the real pioneers of the industry, his connection with it dating from 1899. He has had experience with both American and imported cars, his going to the Fiat being in the nature of a return to an early love. While he now will have to do with the American model, he handled the overseas production first as Boston agent and later as one of the headquarters staff in New York.

L. B. Sanders, manager of the Brush Chicago Motor Co., has been promoted to the post of district manager of the Brush Runabout Co. for the Middle West. His headquarters, however, will remain in Chicago. The vacancy in the local establishment caused by Sander's advancement has been filled by the appointment of P. J. Pollock, a Brush traveler.

H. H. Thorpe, sales manager of the Lion Motor Sales Co., Detroit, has resigned to take the Michigan state agency for the Van "22," a new car made at Grand Haven, Mich. He will be succeeded by Richard E. Fair, now manager for the western district for the Lion company.

Wiley F. West has been appointed manager of the St. Louis branch of the Firestone Tire & Rubber Co. He hails from Atlanta, Ga., where he managed the branch store of another tire company.

**Detroit Carburetter Concern in Trouble.**

The Auto & Marine Appliance Co., of Detroit, Mich., which recently started business with a capitalization of \$100,000, little or no ready cash, and a patent on a car-

buretter, is trying to adjust its difficulties in the bankruptcy court. The liabilities of the company amount to about \$5,000, while the assets consist of some machinery, some finished carburetters and a contract with the Paige-Detroit Motor Car Co., calling for a supply of carburetters. All assets are tied up by a chattel mortgage and assignment to Sarah A. McLean and to the Michigan Lubricator Co., another creditor.

**Motor Car Equipment Changes Hands.**

Emil Grossman, president of the Motor Car Equipment Co., New York, has disposed of his entire holdings in that concern and no longer is connected with it in any way. His interests were purchased by Walter M. Taussig and C. F. Wiebush, of the New York importing firm Wiebush & Hilger, Ltd., and by Carl Kaufman, the general manager of the Equipment company, of which Taussig has become president, Wiebush vice-president and Kaufman secretary and treasurer. Kaufman also retains the general management.

**Selden Suit Against DeDion-Bouton.**

To the sixteen suits against importers for alleged infringement of the Selden patent, which were filed last week, the Association of Licensed Automobile Manufacturers has added another. This latest action is against the DeDion-Bouton Automobile Selling Branch and seeks an injunction, damages and profits. The suit is entitled: the Columbia Motor Car Co. and George B. Selden against Emanuel Lascaria, trading and doing business under the registered trade name of DeDion-Bouton Selling Branch.

**Regal Reaches Into Great Britain.**

The Regal Motor Car Co. has joined in the "invasion" of Great Britain. It has placed the British agency with Seabrook Bros., of London, who have contracted for 350 Regal cars to be delivered during the 1911 season. The arrangement was effected by R. M. Lockwood, a New York export expert, who recently was engaged by the Regal company and who already has accounted for several other substantial orders in other parts of the world.

**Selden License Issued to Garford.**

The executive committee of the Association of Licensed Automobile Manufacturers having approved its application, as the Motor World stated last week had been done, a Selden license formally has been issued to the Garford Co., of Elyria, Ohio. This brings the number of licensees to 83.

**Buick Branches Abandon Accessories.**

The Buick branches no longer will handle accessories. Following orders from headquarters, they are disposing of their stocks on hand "at less than cost," according to the advertisement of one of the branches.

**FIXES STATUS OF LOCK WASHERS**

**Appraisers' Decision on Hoffnung's Appeal—Assessed as "Washers," Not "Manufactures of Metal."**

In sustaining a protest filed by S. Hoffnung & Co. of New York, the Board of United States General Appraisers has decided that metal washers with an improved device to prevent the nut from slipping after it has been properly fastened are dutiable properly as "washers" under Paragraph 162 of the Tariff act of 1909 rather than as manufactures of metal not specially provided for in Paragraph 199 of the act.

The merchandise was invoiced as fast-nut washers, which were classified by the Custom House authorities as manufactures of metal, whereas the importing concern claimed that the articles are "washers" and properly dutiable at three-quarters of one cent per pound under Paragraph 162, which specifies "washers of wrought iron or steel." The question was raised at the hearing of the protest whether the articles are in fact "washers," and, secondly, whether if in fact "washers" they are not designed for use on automobiles and dutiable as parts of automobiles.

On this point General Appraiser Fischer rules that a patented metal washer, though it be used on automobiles, having no adaptation for that purpose, and in fact commonly and practically used otherwise, is dutiable as a "washer" rather than as "parts of automobiles." Discussing the question of the classification of the articles, the decision says in part:

"It is true that these articles are not the common washers well known to everybody, but they are nevertheless washers. They are intended for and in fact used only as washers, have always been so used, and differ from the old-fashioned article only in that they have an improved device to prevent the nut from slipping after it has been properly fastened. This extra device or improvement does not rob the article of its character as a washer, and the provision in the tariff for washers fully covers it. They fit the term as understood both commonly and in trade."

**Fire Destroys Salisbury Axle Factory.**

The No. 2 factory of the Salisbury Wheel & Mfg. Co., at Jamestown, N. Y., was totally destroyed by fire Wednesday evening of last week, 21st inst., entailing a loss of \$80,000. The plant, a four story structure devoted to the manufacture of front axles, will be rebuilt as soon as the insurance is adjusted. The Salisbury company, however, owns another factory in Greenville, Pa., which will permit its orders to be taken care of with comparatively little delay.



**THE WEEK'S INCORPORATIONS.**

Bangor, Pa.—Bangor Auto Co., under Pennsylvania laws, with \$10,000 capital.

DuBois, Pa.—Motor & Supply Co., under Pennsylvania laws, with \$25,000 capital.

Peoria, Ill.—Cummings-Rutherford Motor Car Co., under Illinois laws, with \$5,000 capital.

Brooklyn, N. Y.—Simplica Automobile Co., under New York laws, with \$2,000,000 capital.

Constantine, Mich.—Constantine Motor Castings Co., under Michigan laws, with \$15,000.

Philadelphia, Pa.—Warrington Garage & Machine Works, under Pennsylvania laws, with \$10,000 capital.

Waterville, Me.—Maine Supply & Garage Co., under Maine laws, with \$200,000 capital. Corporators—Ansene Cailler and others.

Chicago, Ill.—Woodlawn Park Garage, under Illinois laws, with \$5,000 capital. Corporators—V. B. King, A. Humphrey, E. J. Suhns.

Detroit, Mich.—Horton Autoette Mfg. Co., under Michigan laws, with \$100,000 capital; to manufacture automobiles and motor vehicles.

Chicago, Ill.—American Taxicab Co., under Illinois laws, with \$16,000 capital. Corporators—W. Huttman, M. Niestrom, John A. Herrine.

Eaton, Ohio—Cyriaks Auto Co., under Ohio laws, with \$15,000 capital. Corporators—F. R. Cyriaks, F. R. Christman, Rachel Christman.

Sewickley, Pa.—Sewickley Automobile Co., under Pennsylvania laws, with \$5,000 capital. Corporators—A. F. Mohn, P. M. & M. P. Feltwell.

San Antonio, Tex.—San Antonio Motor Car Co., under Texas laws, with \$15,000 capital. Corporators—W. Budd, Jr., L. R. Daniel, J. M. Lynch.

Toledo, Ohio—Warren Motor Sales Co., under Ohio laws, with \$40,000 capital. Corporators—S. P. Holmes, C. E. Voan, John McKenna, J. J. Duck.

Newark, N. J.—Economy Auto Supply Co., under New Jersey laws, with \$50,000 capital. Corporators—T. Kaplan, E. Elin, B. Miller, N. Salzman.

Indianapolis, Ind.—Phillips Demountable Rim Co., under Indiana laws, with \$30,000 capital. Corporators—J. N. Crabb, W. A. Zumpfe, J. F. Messick.

Boston, Mass.—Motor Car Service of Boston, under Massachusetts laws, with \$5,000 capital. Corporators—Frederick E. Dewey, J. Edward Lavell.

Memphis, Tenn.—H. A. White Auto Co., under Tennessee laws, with \$40,000 capital. Corporators—H. A. White, F. M. White, A. B. Clapp, Jane H. White.

Brooklyn, N. Y.—Newkirk Garage & Taxicab Co., under New York laws, with \$25,000 capital. Corporators—D. H. Spicer, W. L. Watson, F. A. Behrens.

Kansas City, Mo.—Case Auto Supply Co., under Missouri laws, with \$5,000 capital. Corporators—R. H. Alexander, Belle S. Alexander, Christine Alexander.

Havre de Grace, Md.—Havre de Grace Automobile Co., under Maryland laws, with \$3,000 capital. Corporators—M. Vandiver, Michael Fahey, Clarence Pussey.

Jersey City, N. J.—National Tire Fabric Co., under New Jersey laws, with \$50,000 capital; to deal in patents, etc. Corporators—J. Sullivan, M. Bowan, D. Hogan.

Chicago, Ill.—Marion Motor Co. of Chicago, under Illinois laws, with \$10,000 capital. Corporators—Robert E. Maypole, Alvar A. Landry, George F. Carpenter.

Carlisle, Pa.—Dillsburg & Wellsville Auto Co., under Pennsylvania laws; to operate automobile buses. Corporators—T. J. Seiple, R. L. Nesbit, Ed. W. Shapley and others.

Weatherley, Pa.—Miller Automobile Co., under Delaware laws, with \$100,000 capital; to manufacture automobile trucks. Corporators—Stanley E. Oberrender, Dr. Jenkins, Charles Miller.

Columbus, Ohio—Columbus Motor Car Transportation Co., under Ohio laws, with \$100,000 capital. Corporators—George W. Pope, James J. Liddy, M. J. O'Rourke, N. H. Wilson and others.

Indianapolis, Ind.—Commercial Car Sales Co., under Indiana laws, with \$10,000 capital; to manufacture and deal in motor trucks. Corporators—B. S. Dean, Tillis Huff, Calvin Shoemaker.

Westerly, R. I.—Dual Tired Wheel Co., under Rhode Island laws, with \$100,000 capital. Corporators—Herbert Stillman, Frank Hill, George B. Carpenter, Elisha C. Stillman, Samuel H. Davis.

Chicago, Ill.—American Taxi & Auto Owners' Protective Association, under Illinois laws, with no capital; for protective benefit. Corporators—Charles Roff, P. C. Kohler, E. M. Carew.

Newark, N. J.—Vroom & Co., under New Jersey laws, with \$25,000 capital; to manufacture and deal in wagons and automobiles. Corporators—C. W. Smalley, William Ward, Peter Vroom.

Denver, Col.—Limon Auto Transportation Co., under Colorado laws, with \$7,000 capital; to operate automobiles for public hire. Corporators—James W. Moorman, James M. Cochran, John H. Prewett.

White Plains, N. Y.—Ashco Mfg. Co., under New York laws, with \$10,000 capital; to manufacture and deal in accessories for automobiles and bicycles. Corporators—C. S. Ashley, Robert W. Ashley, Alfred Streuli.

New York City, N. Y.—Hydraulic Oil

Storage Co., of New York City, under New York laws, with \$50,000 capital; to manufacture and sell appliances for the storage of oil, etc. Corporators—B. Clark, F. C. Leubuscher.

Augusta, Me.—National Boat & Engine Co., under Maine laws, with \$10,000,000 capital; to erect and operate factories for the manufacture of power boats and vehicles of all kinds propelled by mechanical power. Corporators—R. S. Buzzell, M. M. Farrar.

**Increases of Capital.**

St. Louis, Mo.—Victor Motor Car Co. increases capital from \$30,000 to \$150,000.

Detroit, Mich.—Edmunds & Jones Mfg. Co. increases capital from \$25,000 to \$50,000.

Detroit, Mich.—Paige-Detroit Motor Car Co. increases capital from \$100,000 to \$250,000.

Richmond, Ind.—Westcott Motor Car Co. increases capital from \$100,000 to \$250,000.

Detroit, Mich.—Michigan Motor Truck Co. increases capital from \$1,000,000 to \$1,100,000.

Detroit, Mich.—Hudson Motor Car Co. increases capital from \$100,000 to \$1,000,000.

**Recent Losses by Fire.**

Philadelphia, Pa.—H. S. Groves' garage, 248 West Tulpehocken street; loss, \$2,500.

Hyannis, Mass.—George P. Holbrook's garage, stable and a dwelling; total loss, \$20,000.

North Andover, Mass.—Richard H. Russell's garage; building destroyed, five automobiles saved; loss, \$2,500. Fully insured.

Sheldrake, Cayuga Co., N. Y.—Cram Garage and two automobiles destroyed. Loss, considerable. Cause said to be incendiary.

New York City, N. Y.—Boylston Garage, 142 East 41st street; building and 31 automobiles destroyed. Estimated loss, \$200,000.

Denver, Col.—Denver Rubber Tire Works, 28 Colfax avenue; contents store rooms; loss, \$5,000. Cause unknown. No insurance.

South Manchester, Conn.—Williard Hunt's garage; building damaged, one automobile destroyed; loss, \$1,500. Cause unknown. Partly insured.

Boston, Mass.—James E. Wilbur, 299 Norfolk street; garage burned, automobiles saved. Loss, \$1,000. Cause, leaking gasoline tank on one of the cars.

Trenton, N. J.—Frank Cook's garage, 38 South Olden avenue; building damaged, one automobile burnt; loss, over \$4,000. Caused by explosion of lamp.

Peoria, Ill.—J. R. Harrison, 1601 North Adams street; garage damaged, one automobile destroyed; loss, \$3,000. Leaking gasoline tank explosion was the cause.

## IN THE RETAIL WORLD.

Matt Kerr, Archibald Gorman and Robert Kerr will open a garage in Stratford, S. D.

A. Hanson & Son, owners of a garage at Holdrege, Neb., have sold out to C. Engstrom.

Blough & Fisher are the proprietors of a new garage which just has been opened in La Grange, Ind.

The Milford Auto Machine Co. has purchased the Franklin Square Garage situated on Allen court, Worcester, Mass.

Harry Parker, of Cullman, Ala., has engaged in the automobile business. He has opened a garage on Main street.

H. D. Parks has purchased the City Garage in Springfield, Ill. He will continue the business under his own name.

R. C. Smith, of Washington, D. C., has secured the Overland agency for the city and established salesrooms at 829 14th street.

The Kelley Automobile Co., of Youngstown, Ohio, has opened its new garage at 221 Chapel place. It will specialize on electrics.

The Yorkville Auto Supply Co. has "opened up" at 1235 Lexington avenue, New York. Sidney Richmond is its owner and manager.

Huerth & Knipscheid is the style of a new firm which just has opened up in Sauk City, Wis. They will specialize in renting and repair work.

R. K. Luse and F. Rapp have opened a garage in the I. O. O. F. building at Oxford, Iowa. They will represent several makes of cars and will do general repair work.

A permit has been granted to J. L. Becker, of Syracuse, N. Y., to erect a garage at 209, 211, 213 Harrison street. The building is to cost, when complete, about \$5,000.

The Standard Motor Car Co. has been organized by the members of the Riddell Auto Co., in Des Moines, Iowa, for the purpose of selling Patterson automobiles. E. A. Kiser will manage the company.

The King Motor Car Co. is the latest arrival among the automobile firms of Sacramento, Cal. Warren-Detroit and Interstate cars will be shown at the salesrooms, which are located at 1207 11th street.

Earl Chambers, of the firm Chambers & Shea, Danville, Ill., has bought out his partner and will conduct the business hereafter in his own name. His garage is located at 27-31 North Walnut street.

The A. S. Johns Motor Car Co., which a few weeks ago was organized at San Antonio, Texas, has invaded Austin and established a branch house there. J. E. Faggard will be in charge of the Austin branch.

Work has been started on the erection of a garage at the corner of Moody and Alder streets, Waltham, Mass. E. C. Irish is building it with the intention of exhibiting Rambler cars in the building when completed.

Electric automobiles are to be featured at the new salesrooms and garage just opened at 1207-1211 Harmon place, Minneapolis, Minn., by the Electric Carriage & Battery Co. M. H. Hughes is president of the concern.

Bruce Rutherford, George E. Cummings and Howard Kinsey have formed a partnership under the style the Cummings-Rutherford Motor Car Co., with headquarters at 830 Main street, Peoria, Ill. They will handle Overland cars.

The Regal Garage Co. has been organized in Spokane to handle the Regal car in the eastern half of the state of Washington. Earl C. Finley is president and H. Preston secretary of the concern, which has taken 250 cars for its territory.

F. C. Hobbs, a machinist of Newark, N. J., has obtained the state agency for Pullman cars and leased the salesrooms now occupied by the Essex County Overland Co., at 211 Halsey street. He will have them ready for opening by November 1st.

The Elmore Auto Co., organized to handle Elmore cars in Des Moines, Ia., has opened up for business in temporary quarters at 614-616 Mulberry street. F. L. Kern, formerly secretary and treasurer of the Iowa Auto Club, is president of the company.

E. R. Wilson, formerly manager of the Paxton-Mitchell Co., has severed his relations with that concern and has formed the E. R. Wilson Automobile Co., with headquarters at 2010 Harney street, Omaha, Neb. Lexington cars will be his chief stock in trade.

The United Motor Charlotte Co., a subsidiary concern of the United States Motor Co., has established a branch in Asheville, N. C., of which J. H. Ham has been appointed manager. In addition to handling Maxwell and Columbus cars, the company will feature Sampson trucks.

Under the style the Bennett Motor Car Co. a new firm has been organized in Pittsburgh, Pa., with W. W. Bennett, formerly manager of the Standard Automobile Co., of the same city, as president. Pope-Hartford cars will be featured in the salesroom of the new company, at 5904 Penn avenue.

Mayor Frank Walsh, of West Allis, Wis., finding his executive duties light, has entered the automobile business by purchase of the garage of the Stephenson Motor Car Co., located on Eighth street, Milwaukee, Wis. The repair shops connected with the garage are said to be the largest in the city.

Having outgrown its quarters at Atlantic and Bedford avenues, Brooklyn, N. Y., the

Bruns Automobile Co. has taken the ground floor of the Cooper building, corner Bedford avenue and Fulton street. The salesrooms cover 5,000 feet of floor space, on which Chalmers-Detroit and Hudson cars will be featured.

A. M. Young, formerly a member of the firm of Bireley & Young, Columbia agents at Los Angeles, Cal., is to head a new organization which will handle the Thomas car. The new firm is to be called the Thomas Motor Car Co., and will occupy the building at 842 South Olive street as salesrooms and garage.

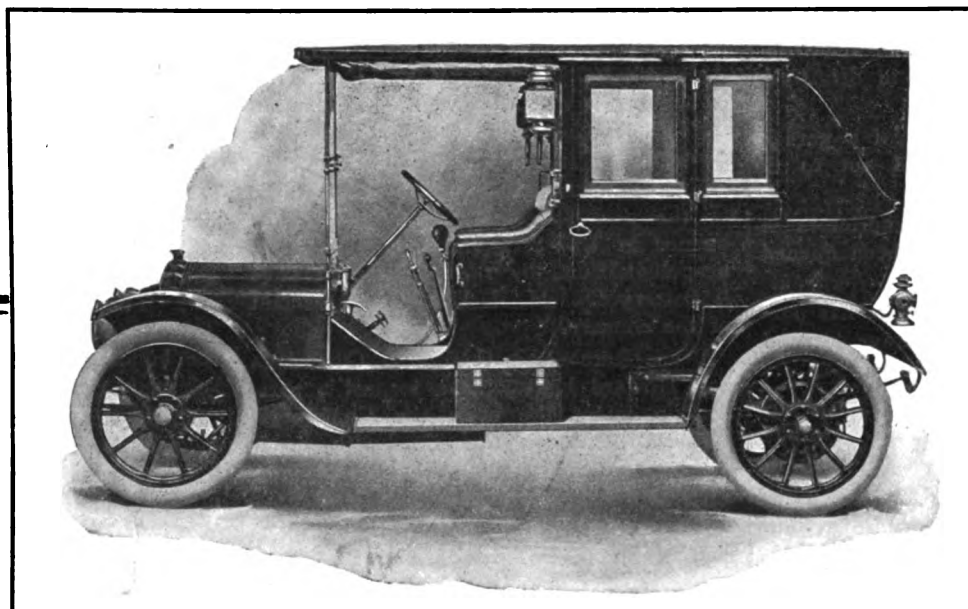
Glenn Frazelle, doing business in Springfield, Ohio, as the Frazelle Auto Co., has been petitioned into bankruptcy. Among other things the petition charges that he is giving some creditors preference over others and that he is endeavoring to settle with his creditors for 25 cents on the dollar, while possessing sufficient assets to pay more.

Franklin Leonard, Jr., has been appointed receiver of the Cloud-Marts Co., 1871 Broadway, New York City, selling agents for the Selden car, with a bond of \$5,000, upon the voluntary petition of the directors of the company. The liabilities are \$5,812; the assets, \$5,543. The business was started in September, 1909, with a capital of \$10,000.

Attorneys acting for nine creditors in Chicago, New York, Cleveland, Memphis and Newark, Ohio, have filed a petition in bankruptcy against the Cullen-Butler Auto Co., one of the pioneer automobile concerns of Memphis, Tenn. The extent of the liabilities has not been published, while assets are said to be large, including a handsome sales and garage building and numerous accounts.

R. H. Collins, manager of the Kansas City branch of the Buick Motor Co., has purchased the entire business of the Buick company in the Southwest territory, including all automobiles, notes, accounts, etc., and will conduct the firm's affairs hereafter under the style the R. H. Collins Motor Co. His territory includes western Missouri, Kansas, Oklahoma, Colorado, New Mexico and northern Texas. The company's headquarters are at the corner of Admiral boulevard and McGee street.

The Overland Sales Co., of New York, which was incorporated last week with \$100,000 capital, has taken over the agency for the Overland car for the entire metropolitan district, previously held by George L. Reiss. The new concern, of which Thomas Silver is president and manager, has located at 1599-1601 Broadway, New York, where it occupies a two-story structure. Silver is well acquainted with the Overland product, having controlled the sub-agency for Brooklyn. Reiss, the former metropolitan agent, has taken on the Abbott-Detroit car.



## The Arbiters of Elegance

**W**HAT the White Limousines are in their class, the White Landaulets are in theirs—the arbiters of elegance—the models—the patterns for correctness of style. The cars in which the subtle suggestion of graceful curves, the ensemble of harmonious lines, satisfies every sense of proportion.

The careful construction evident even in the most obscure details of these cars, makes them ideal town cars for practically all seasons of the year. Again, as the limousine, its size is greatly in its favor—not too large nor too small—massive and substantial-looking, yet not unwieldy. Because of its size it is easier on tires, and threads its way in and out among the larger vehicles of the crowded city, avoiding many of the delays of the more cumbersome cars.

It is convenient to enter or leave—in fact, satisfactory for shopping, theater, calling and the score of trips for which the city dweller needs a car. Richest leathers and handsomest broadcloths, cords, tapes, and every other detail, are of the kind found only in constructions as conscientious as the White. There can be no finer example of efficiency than the White Gasoline Landaulet—larger cars may be built, but none better.

Literature sent upon request.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO



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### The Grade Crossing Must Go!

Apparently in need of publicity to justify its existence and having nothing better to do, the chief, if not the only, factotum of Mr. Henry Clews's "National" Highway Protective Association has let it be known that he is preparing for submission to the next legislature of New York a bill requiring all automobilists and horsemen to come to a full stop before venturing upon any railway grade crossing within New York state.

In commenting on the proposal, the New York Times sagely remarks that "to enforce such a law would require the presence of a policeman at every grade crossing," and while asserting that "there can be no excuse for the negligence" of drivers who suffer death or injury at such crossings, the Times nevertheless declares what is perfectly obvious, i. e., that the way to make an end of such fatalities is to abolish the grade crossing.

While motorists and others who have had

## THE MOTOR WORLD

unpleasant experiences at grade crossings which do not permit a view of the railway tracks for more than eight or ten feet in either direction or with a quietly "coasting" locomotive or with trains that do not whistle or, if at all, that whistle only when practically upon the crossing—while such persons will incline to disagree with the notion that there can be no excuse for accidents at grade crossings there will be no disagreement with the opinion that the way to terminate such occurrences is to abolish the grade crossings. And it should be the part of every man, woman and child who travels the public highway to cry out for and to lend assistance to any movement that has for its purpose the abolishment of the death-traps. The toll of human life which they collect each year is too enormous to be much longer countenanced.

Motorists have been such numerous victims and their safety is so particularly menaced by the existence of grade crossings, that they have cause for leading a campaign that seeks to put an end to the peril. The New Jersey Automobile and Motor Club has taken the first step in that direction. It has sounded the slogan: "The grade crossing must go," and has sounded it often enough to awaken a few echoes, at least. The cry should be taken up in all directions.

Every automobile organization and every other organization with which automobilists have to do should pass resolutions to that effect and call on their legislature to enact the necessary remedy, and in every other way public sentiment should be aroused to such a point that neither law maker nor railway president may longer remain insensible to the pressure. It will take a long time to make any considerable impression, but a beginning may as well be made now.

Human life is more valuable than stock dividends. If it is necessary to save life, let the railways reduce their dividends.

The legislators who permit the erection of "Stop, Look and Listen" signs to shift the burden of responsibility onto the road user should be ousted from office. That game has been played too long. The grade crossing must go!

### Advance of the Automobile Fire Engine.

In connection with the growing adoption of automobile apparatus for fire department use, one telling argument for its economy should not be overlooked: Unlike horse

drawn equipment its maintenance and operating cost depends directly upon the number of alarms to which it responds. This is one case in which the saying that the motor vehicle is cheap to maintain because "it does not have to be fed, rain or shine," is of real significance.

Ordinarily where horses are to be replaced by self-propelled vehicles calculation is based on continuous, or practically continuous, service during every working day. The saving effected by canceling the hay and grain bill thus is diminished by the constant use of fuel and oil. In the case of the fire department, however, the apparatus is idle save on the occasion of an alarm. Hence, as Chief Daggett, of Springfield, Mass., explains, "if a town has 1,000 fires a year there is naturally a great use of gasoline and hard usage on the machines. But in a town that has only 100 fires a year, there is but one-tenth of the expense per annum. Meanwhile, the saving for the small town is all the greater, because horses will eat all the year 'round whether there are 100 or 1,000 fires, and the horse-equipped departments become a proportionately greater expense on the community."

Barring this one argument, all other reasons why the automobile should be more effective in fire-fighting than the horse are of an obvious nature. Moreover, they are largely borne out by the facts, even considering that such experiments as have been, and now are being, conducted are at municipal expense, which is the same thing as saying great expense in many sad instances. The greater speed of the motor vehicle, its ever-ready and tireless qualities and the fact that it can be handled to better advantage in traffic would serve to bring about its general adoption in the course of time even without the added advantage of economy. That added factor is an argument that should not permit the horse to remain long in the service in which he has done such faithful and picturesque duty.

### Reducing the Risks of Fire.

Despite ample safeguards in the way of approved equipment for the handling of fuel and oils, the establishment of strict regulations by insurance underwriters and fire departments, and the wisdom of costly experience, possessed by more than one management, fire losses continue to levy a burdensome tax upon the profits of the

## COMING EVENTS

garage business. Granted that the fire risk is high at best, because of the inflammable nature of materials handled and the fact that the fuel system of every car on the floor may be considered a potential cause of fire, it is unquestionable that the aggregate loss throughout the country is much higher than it should be, and it is high time that sweeping measures were taken by that contingent of the automobile industry that so stoutly avers its profits are so pitifully small to conserve a portion of its income by reducing such unnecessary losses.

Modern methods of combating fire losses are two-fold in their application. Means are taken to prevent the starting and to check the spread of fires by isolating inflammable materials as far as possible, and provision also is made to extinguish any fire as soon after it starts as may be. The first method largely is employed in the construction and equipment of up-to-date garages; the second, unfortunately, is not so generally carried out to its logical conclusion.

Beyond the establishment of the chemical extinguishers and water hose that the authorities prescribe, it is not customary to employ other systems which, in different sorts of establishments, are considered invaluable. One of the most important and obvious of these is the organization of employees into regular fire-fighting corps. To inaugurate such organization, establishing regular fire stations, a crew to each, and an alarm system, involves very little trouble in a business that already is well regulated. Moreover, it entails very slight expense, even counting the shop time lost by the occasional drills, which are an essential part of the system.

In stores, warehouses, public buildings and on steamships, where the risk is most perilous to life and limb, fire drill is an important co-ordinate of the thermostat and sprinkler systems in preventing the spread of fire. The same applies to many factories—and should apply to all those that might suffer serious damage from fire. Yet such an organization in a garage, where the risk is notoriously great, is practically unknown, strange as it may seem.

Among the most wonderful of modern marvels is the success which has been achieved in the introduction of exhaust turbines in large power units. The subject

September 30-October 3, Minneapolis, Minn.—Automobile Club of Minneapolis third endurance run.

October 1, Springfield, Ill.—Automobile races at Illinois State Fair.

October 1, Peoria, Ill.—Automobile races at state fair.

October 1, Mineola, L. I.—Sixth annual Vanderbilt Cup race and Motor Parkway Sweepstakes on Long Island Motor Parkway, under the auspices of the Motor Cups Holding Co.

October 4-6, Kansas City, Mo.—P. O. P. races at Elm Ridge under auspices of Kansas City Automobile Dealers' Association.

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, Santa Anna, Cal.—Automobile meet.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 8, Spokane, Wash.—Automobile meet at Interstate Fair.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-12, Amarillo, Tex.—Panhandle Fair Association's annual race meet.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 15, Chicago, Ill.—Chicago Motor Club's reliability contest.

October 15-16, Philadelphia, Pa.—Automobile Club of Philadelphia fall tour, Atlantic City and return.

October 21-22, Boston, Mass.—Boston "American" commercial vehicle contest.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

October 28-29, New York City—Commercial vehicle test, under auspices New York American.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 7-11, Chicago, Ill.—Reliability contest under auspices Chicago Motor Club.

November 10-13, San Antonio, Texas—San Antonio Automobile Club's races at International Fair grounds

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 26-27, Los Angeles, Cal.—Motordrome races.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 5-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

again is brought to notice by recent announcements to the effect that the capacity of the New York subway power plant has been doubled and the steam consumption per horsepower hour reduced by this means. The possibility of adapting the exhaust turbine to the small internal com-

bustion engine already has engaged the attention of inventors, as has the internal combustion turbine as an independent prime mover. But it looks as though motorists who are determined to await the marketing of such ideal motors must still possess themselves of considerable patience.



# FINE FIELD FOR SIXTH VANDERBILT

Thirty Representative Contenders Ready for Daybreak Start on Saturday—Fifteen More in Line for the Lesser Events—Incidents of Final Preparations—Old-Time Interest Promises Large Crowd and Old-Time Scenes.

It looks as if the Vanderbilt Cup race has "come back."

For the first time since it ceased to be an international event, the air is surcharged with much of that keen interest and expectancy that marked the earlier events, and there is promise of the midnight and daybreak scenes and crowds—the family parties, the "souse" parties and the individuals—that rendered them so highly spectacular. There are those who profess to believe the attendance will approach that of the memorable years of 1904 and 1905, and that from 500,000 to 1,000,000 people will group themselves about the course on Long Island. But such estimates probably are born of great faith and unwonted enthusiasm. It appears certain, however, that the crowd will be larger than for several years and that it will be made up in large part of motorists and those interested in motoring.

The great outpourings of humanity in 1904 and 1905 are not likely to be repeated. In those years the race largely was a team race, with Germany pitted against France and America against them both, and the heated popular fancy was over-full of roaring red devils and hurtling death defiers, and the great green public fairly stampeded toward Long Island in its desire to witness the devilish doings and have its hair raised on end by the dalliances with death. The spectators expected that crimson gore would spurt like fountains from mangled flesh, and that metal parts of large snorting monsters would roar heavenward, many a time and oft.

Since then, however, the motor car has become a commonplace sight. It now is easy to hear red devils snort and Willie boys defy death on almost any well traveled highway, and perforce the great green public, which once lined the Vanderbilt course now flocks where fly the aeroplanes, the newest toys in their eyes and those which promise more thrills and gruesome happenings. That likely the possible quarter million or more people who may gather on Long Island next Saturday to witness the sixth Vanderbilt, not to mention the two minor events, will hear more snorts and see more cars "ripping it out," and "get a real run for their money," than ever before is well forecasted by the size of the entry list. There will be more cars contending for the big cup than ever before

## VANDERBILT CUP

Prize—W. K. Vanderbilt, Jr., Trophy, \$2,000 in Cash and Bronze Placque  
For Cars in Class C (301-600 cu. in.)  
278.08 Miles—22 Laps.

Car and Driver	Weight	Cylinder	Bore	Stroke	Displacement
American, William Wallace.....	2600	4	5¾	5½	571.9
Columbia, Harold Stone.....		4	4¾	5½	410.6
Marmon, Joe Dawson.....	2200	4	4½	5	318.
Marmon, Ray Harroun.....	2200	4	4½	6½	413.5
Benz, Franz Heim.....	2400	4	4 15-16	5¾	448.
Benz, E. A. Hearne.....	2400	4	4 15-16	5¾	448.
Benz, D. Bruce-Brown.....	2400	4	4 15-16	5¾	448.
Alco, H. F. Grant.....	2300	6	4¾	5½	579.9
Pope-Hartford, Jack Fleming.....		4	4¾	5½	389.9
Pope-Hartford, Bert Dingley.....		4	4¾	5½	389.9
National, John Aitken.....	2650	4	5	5 11-16	446.7
National, Al. Livingstone.....	2650	4	5	5 11-16	446.7
National, Louis A. Disbrow.....	2650	4	5	5 11-16	446.7
Corbin, Joe Matson.....	2000	6	4½	4¼	405.6
Amplex, Walter Jones.....	3300	4	5 1-16	5	402.5
Stoddard-Dayton, Tobin DeHymel.....	2700	4	5¼	5¾	497.8
Stoddard-Dayton, Hugh N. Harding.....	2700	4	5¼	5¾	497.8
Knox, Fred Belcher.....	2910	6	5	4¾	572.
Jackson, E. F. Scheifler.....	2325	4	4¾	4¾	354.7
Mercedes, Spencer Wishart.....	2650	4	5½	6	572.5
Oldsmobile, Harry Stillman.....	4000	4	5	6	471.2
Oldsmobile, Joe Nelson.....	4000	4	5	6	471.2
Haupt-Rockwell, Carl Limberg.....	2800	4	5½	6	570.
Simplex, Leland A. Mitchell.....	3000	4	5¾	5¾	597.2
Simplex, Ralph Beardsley.....	3000	4	5¾	5¾	597.2
Lozier, Ralph Mulford.....	3300	4	5¾	6	544.5
Apperson, Harris N. Hanshue.....		4	5¾	5¾	597.2
Marquette-Buick, Louis Chevrolet.....		4	6	5¼	593.7
Marquette-Buick, Robert Burman.....		4	6	5¼	593.7
Marquette-Buick, Arthur Chevrolet.....		4	5¾	5¾	597.2

## WHEATLEY HILLS SWEEPSTAKES

Prize—Trophy and \$1,000 in Cash  
For Cars in Class 3-B (231 to 300 cu. in.)  
189.6 Miles—15 Laps.

Car and Driver	Weight	Cylinder	Bore	Stroke	Displacement
Marmon, Henry Heinemann.....		4	4½	4½	286.
Marion, Marcel Basle.....	1800	4	4¼	4½	255.
Mercer, E. H. Sherwood.....	1800	4	4¾	5	300.
Corbin, Alvin Maisenville.....	1700	4	4½	4¼	270.4
Correja, Montague Roberts.....	1800	4	4¼	5	283.6
S. P. O., John Juhasz.....	1700	4	3¾	5½	241.7
Mercer, Charles Bigelow.....	1600	4	4¾	5	300.
Fal, W. H. Pearce.....					
Fal, J. F. Gelnow.....					

## MASSAPEQUA SWEEPSTAKES

Prize—Trophy and \$1,000 in Cash.  
For Cars in Class 2-B (161 to 230 cu. in.)  
126.4 Miles—10 Laps.

Car and Driver	Weight	Cylinder	Bore	Stroke	Displacement
Lancia, William Knipper.....		4	3.937	4.33	210.8
Cole, William Endicott.....	1700	4	4	4	201.
Cole, Harry Endicott.....	1700	4	4	4	201.
Abbott-Detroit, V. Padula.....	1500	4	4	4¼	213.6
Abbott-Detroit, Mortimer Roberts.....	1500	4	4	4¼	213.6
Abbott-Detroit, Lee Oldfield.....	1500	4	4	4¼	213.6

and the foreigners scarcely will be missed, although as a matter of fact there will be six imported cars in evidence; their drivers, however, will be, with one exception, home grown men.

There will be 30 contenders for the Vanderbilt cup. For the Wheatley Hills Sweepstakes—for the "big-little" cars—there are seven entrants. For the Massapequa sweepstakes for the "little fellows"—eight entrants are on the list, making a total of 45 cars which will be on the course at one time, by far the largest number that ever has competed in a road race in this country. The large number has required the building of 18 more repair pits in front of the grand stand.

Both cars and drivers are a thoroughly representative lot. All of the men who will hold steering wheels in Vanderbilt cup cars

#### THE CUP AND MEN LINKED WITH ITS HISTORY



GEORGE ROBERTSON  
The First American Who Won the Cup



W. K. VANDERBILT, JR.  
The Donor of the Cup



THE VANDERBILT CUP



HARRY A. GRANT (ALCO)  
The Present Holder of the Cup

literally were dashed to earth on Friday last. In a tryout on the course he turned a corner too swiftly or too sharply and was spilled out. The damage to the car will be repaired, but Robertson, at first made the victim of alarming rumors, was so badly muscle-strained that driving any car is out of the question for him. He has been replaced by Franz Heim, a tester from the Benz factory and a German to delight the heart of the Kaiser. Walter Jones and the Amplex also had a close call. A motorcyclist ventured on the parkway and was riding the wrong way of the course, in defiance of all rules and reason, and Jones in endeavoring to avoid him turned over. Both Jones and the car were badly bruised, but not vitally hurt, and both are expected to be in trim for the race on Saturday.

The only other accident incident to prac-



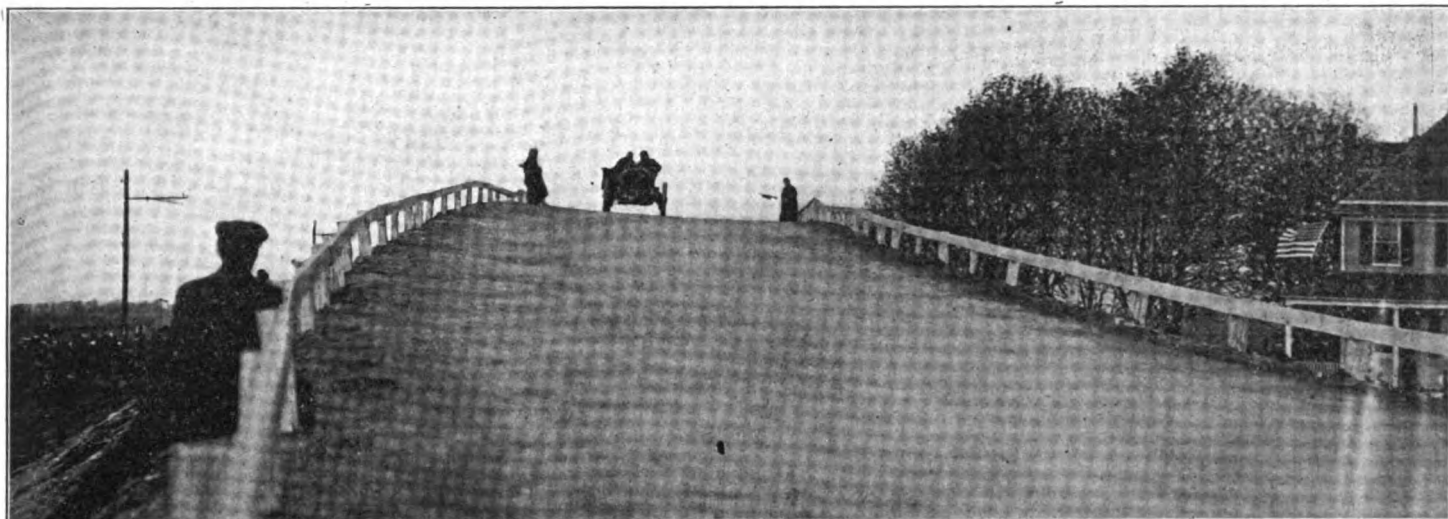
A. R. PARDINGTON  
Manager Long Island Motor Parkway

are men with reputations and are as skilful as they are daring. Most of them have been cavorting around the course during the past week, and press agents have been kept busy weaving tall yarns about swift flights. It has been "press agents' week," but despite fast rounds credited to them the clocking was unofficial and signifies no more than it has signified in other years. It is, as usual, any man's race and, as always, consistent performance is more likely to earn the victory than is mere breakneck or skyrocket speed for one lap or for ten. Fast laps mean little if anything.

It was consistent driving that last year enabled Harry F. Grant to win the cup, and the same sort of work achieved the same result for George Robertson the year before. Grant, again in an Alco, will endeavor to repeat on Saturday, and Robertson also hoped to do so, but in a different car, a Benz. Robertson's hopes, however,

tice work befell one of the entrants in the Massapequa Sweepstakes, William Knipper and his Lancia. He had overtaken Burman driving a Marquette-Buick and seemingly was about to pass him when the cars apparently touched hubs and Knipper and his assistant went sailing through space. Miraculously they escaped serious injury, and the damage to the car looked worse than proved to be the case. It will be repaired and a picturesque feature of the day thus be preserved, for with its torpedolike prow and unusual seating arrangement the Lancia easily is the most picturesque car that has entered the lists. In the accident Burman escaped with a bad fright and the loss of a hub cap. His fright was due not merely to the shock of collision but to what he thought he saw flying through the air. In his confused state of mind, he fancied that Knipper had been split in twain.

The course is the same as was used last



ONE OF THE "JUMPING-OFF PLACES" ON THE PARKWAY THAT MAKE THE DRIVERS' WORK INTERESTING

year, and is an irregular triangle of 12.64 miles, about one-third of which is the cemented surface of the Long Island Motor Parkway; the remainder is oiled country road, which just now is distinguished by a long succession of signs: "Parking Space To Let." Every front yard and every cabbage patch on the route is displaying the sign. It is the natural successor of the "Private Grandstand," which was so numerous in former years and which steeped so many Long Island fingers in financial loss.

So far as concerns the parkway, the course is hard and smooth but suggestively narrow; the country roads are wider, but of course not nearly so smooth. There is some rough going and not a few soft spots, and the corners are badly cut up; in fact, some of the intending competitors are complaining of its lack of condition, and despite reports of private lap trials at better than 70 miles per hour, it does not appear probable that much better than 60 or 61 m. p. h. for the full distance will be made in the big race itself. The Vanderbilt will go 22 laps or 278.08 miles; the Wheatley

#### PREVIOUS WINNERS OF VANDERBILT CUP RACES.

1904.

George Heath, Panhard car.

Average speed, 52 miles an hour.

1905.

Victory Hemery, Darracq car.

Average speed, 61½ miles an hour.

1906.

Louis Wagner, Darracq car.

Average speed, 61.4 miles an hour.

1907.

No Race.

1908.

George Robertson, Locomobile car.

Average speed, 64.3 miles an hour.

(Record.)

1909.

Harry F. Grant, Alco car.

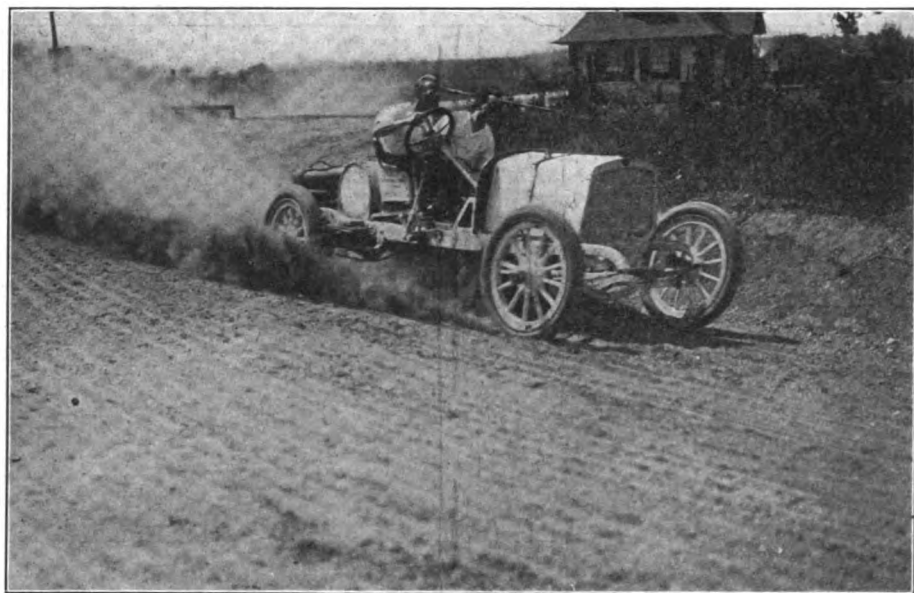
Average speed, 62.8 miles an hour.

Hills, 15 laps or 189.6 miles, and the Massapequa ten laps or 126.4 miles. The utter lack of anything suggestive of a hill is the one element of the course. All the grades are gentle ones.

The manner of conducting the three races will differ from last year's practice. Then the contenders in the Massapequa and the Wheatley Hills were started first at intervals of a few seconds and immediately were followed by the starters in the cup race. As a result there was a large number of cars on the course in the early hours and distressingly few when the Vanderbilt itself was concluded. On Saturday, however, the Vanderbilt cars will be sent away first; about an hour later the Wheatley Hills contenders will be given the word and after another lapse of about the same duration the littlest cars in the littlest race, the Massapequa, will be started. This procedure, it is hoped, will result in a bunched finish and serve to sustain interest to the end. It undoubtedly will lead to confusion of the three events, and the contenders in each, but if it serves to prevent the wear-



GENERAL VIEW SHOWING THE MOTOR PARKWAY WINDING OVER HEMPSTEAD PLAINS



ROUNDING THE MASSAPEQUA TURN IN PRACTICE

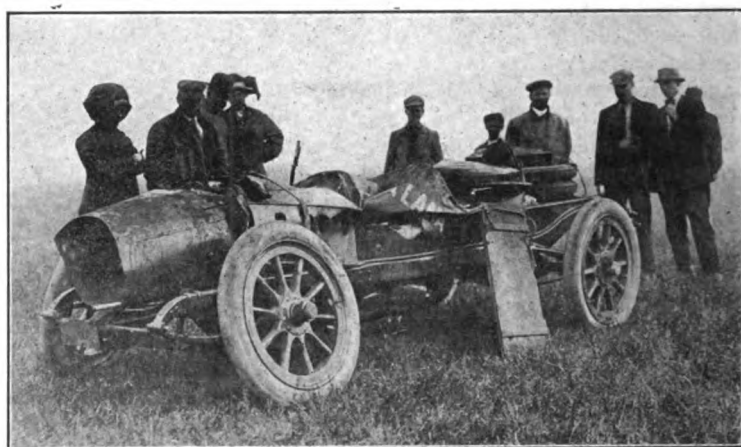
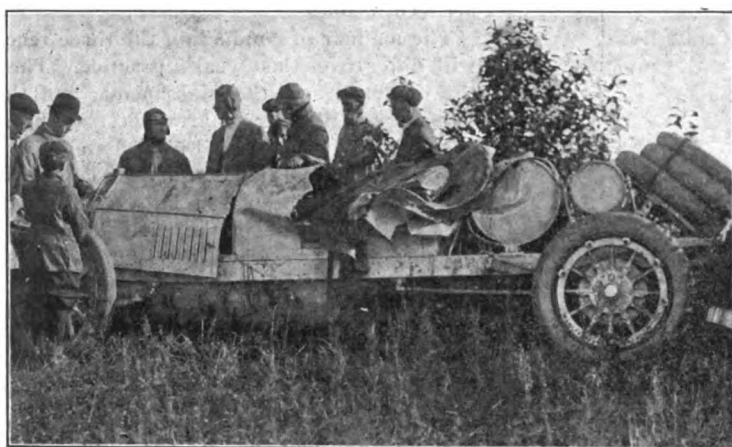
someness of a year ago, it will not have proved wholly in vain.

sistant to the president, A. R. Pardington. The race will be started at daybreak or

Long Island, permits. The first car may be sent away at 6 o'clock; more likely it will be later.

"At frequent intervals between 2 a. m. and 4:50 a. m.," to quote its official announcement, the Long Island railroad will run "special trains" direct to the grandstand. They will start from the new Pennsylvania railroad station at Seventh avenue and 33d street, New York, and all passengers will be afforded the disgusting experience of changing trains at Jamaica. Only special excursion tickets will be honored on these special trains, which probably will start at those "frequent intervals" when the cars are filled and which will reach the grand stand only the Lord knows when, if past experience means anything. In previous years, some of these "special trains" made the 20 miles journey in the swift time of three or four hours and landed the passengers at their destination in time to see the finish of the race, at least.

The management of the race has issued several "recommended routes" for those who purpose going to the scene in automo-



INCIDENTS OF PRACTICE WORK—ROBERTSON'S BENZ AND KNIPPER'S LANCIA AFTER THEIR SPILLS

For the first time, the cars will not "weigh in." Instead, their specifications have been verified by the technical committee, but the declared weights of the entrants are being accepted without question.

The order in which the cars will be started will be settled tomorrow when the drawing takes place, the numbers which they have carried in practice being merely their entry numbers. By leaving the drawing for positions and the numbering of the cars until the eleventh hour the sale of the official program is enhanced and the printing of a flood of "phony" programs is prevented.

As usual, W. K. Vanderbilt, Jr., will referee the races, and Fred J. Wagner do the starting. The other officials will be as follows: Judges, Henry Sanderson, Colgate Hoyt, Dave Hennen Morris, Robert Lee Morrell and Samuel M. Butler; technical committee, A. L. McMurtry, Henry Souther and Alexander Churchward; A. A. representative, Frank G. Webb; as-

as soon thereafter as the mist, which usually marks the rise of night's curtain on

biles. The route recommended from New York is the one via the Queensboro (59th

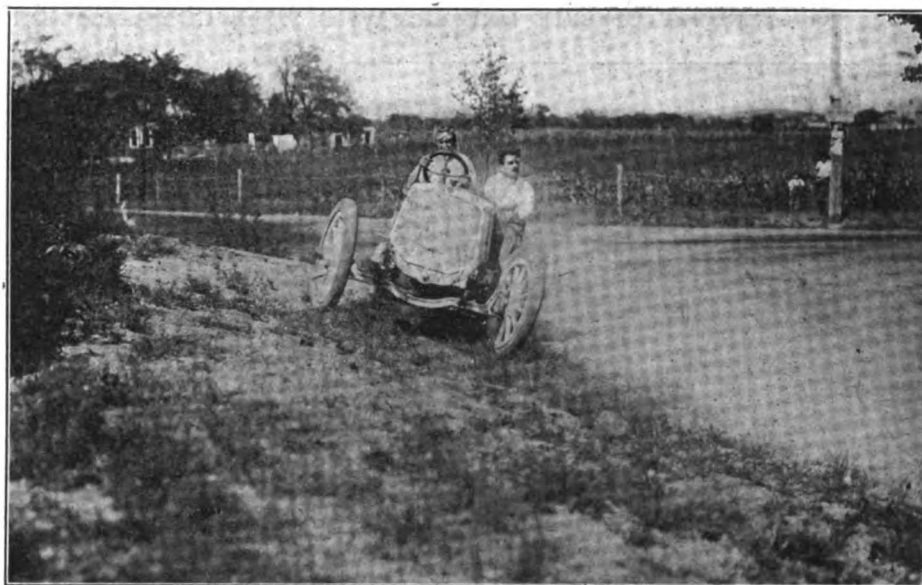


E. F. SCHEIFLER (JACKSON) NEGOTIATING A SHARP ANGLE



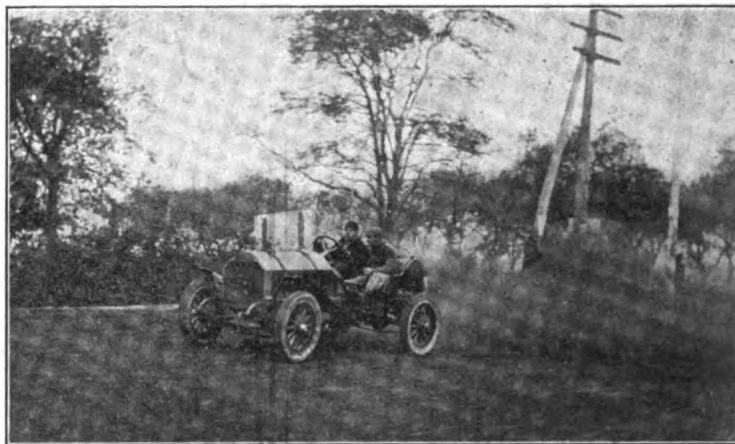
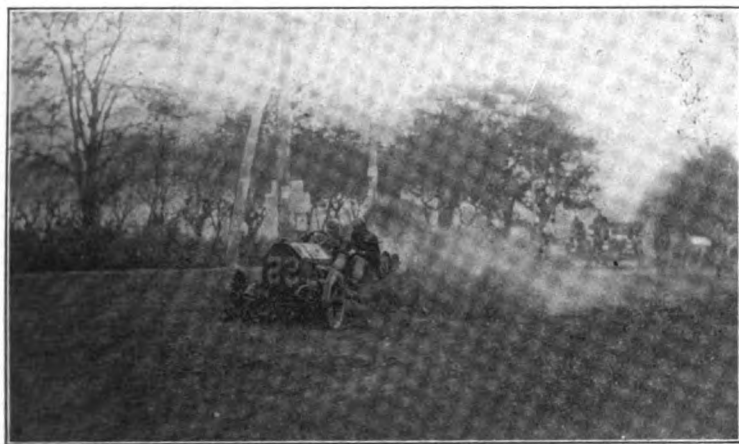
street) bridge and Hoffman boulevard, which undoubtedly is the most direct and most traveled route, but Hoffman boulevard is narrow and full of holes and there is deep sand on both sides of the roadway and it generally is in such a condition that New Yorkers who do not desire to invite accident in the congestion of cars—many of them sure to contain "souse parties"—which is certain to ensue in the dark and early hours of Saturday, will be wise to avoid the Queensboro bridge—Hoffman boulevard route and go via the Williamsburg (Delancey street) bridge to Brooklyn and thence to Bedford avenue, to Eastern parkway, to Jamaica avenue, and continue straight into Jamaica, where Hillside avenue and the "recommended route" beyond can be followed. Not all of Jamaica avenue is in good condition, but the street car tracks are available, and by not making the detour via Ridgewood avenue and Rockaway road, familiar to Brooklynites, the stranger is likely to escape a number of confusing turns.

The "recommended route" from New



POSSIBILITIES OF THE WESTBURY TURN

of 59th street to Long Island City, turn right to Crescent street, to end of street, approach to Thompson County Court House on the right. Cross viaduct into



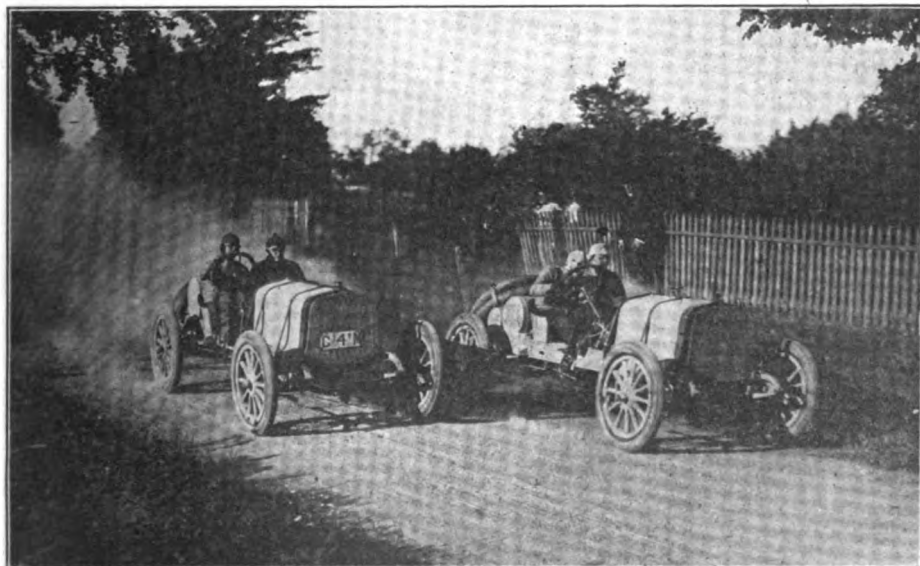
SCENES IN PRACTICE—DAWSON MEASURING MARMON METTLE AND BELCHER TESTING THE KNOX

York to the official grand stand is as follows: Cross Queensboro bridge from foot

turning left at parked section of cross street. Proceed over Jackson avenue to

Thompson avenue. Follow Thompson avenue into Hoffman boulevard, follow Hoffman boulevard to Hillside avenue, turning left at Disbrow's garage. From this point the route is identical with that from Brooklyn. Note—Motorists from New Jersey should take Pennsylvania ferry at Jersey City to 23d street, Manhattan, turning left to 34th or 35th street, thence crossing the city, and proceed to Queensboro bridge, foot of 59th street.

The "recommended route" for motor cars from Brooklyn to the official grand stand is: Leave Long Island Automobile Club at main entrance to Prospect Park, Eastern parkway to Bushwick avenue, turn right; Bushwick avenue to Highland boulevard, turn left (brick pavement); Highland boulevard, passing reservoir, down hill, to Fulton street. Cross trolley tracks into Dresden street. Turn left on Ridgewood avenue, following Ridgewood avenue, under elevated railroad to end of street. Turn right one block. Turn left on Rockaway road (macadam), crossing Long Island railroad



MATSON AND MAISONVILLE TESTING THE CORBINS ON THE COURSE



## THE MOTOR WORLD

EIGHT OF THE DRIVERS WHO WILL COMPETE FOR THE VANDERBILT CUP

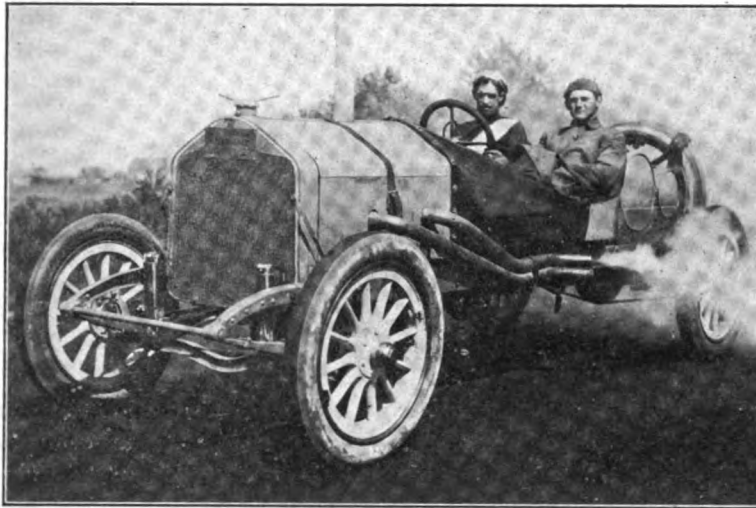


1—L. A. MITCHELL, SIMPLEX  
 2—H. M. STILLMAN, OLDSMOBILE  
 3—RAY W. HARROUN, MARMON

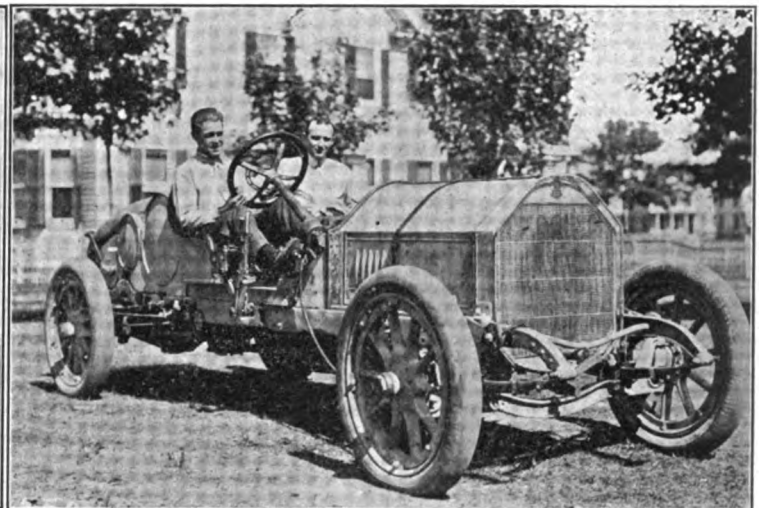
4—HUGH N. HARDING, STODDARD-DAYTON  
 5—LOUIS CHEVROLET, MARQUETTE-BUICK

6—AL LIVINGSTONE, NATIONAL  
 7—JOHN AITKEN, NATIONAL  
 8—J. M. MATSON, CORBIN

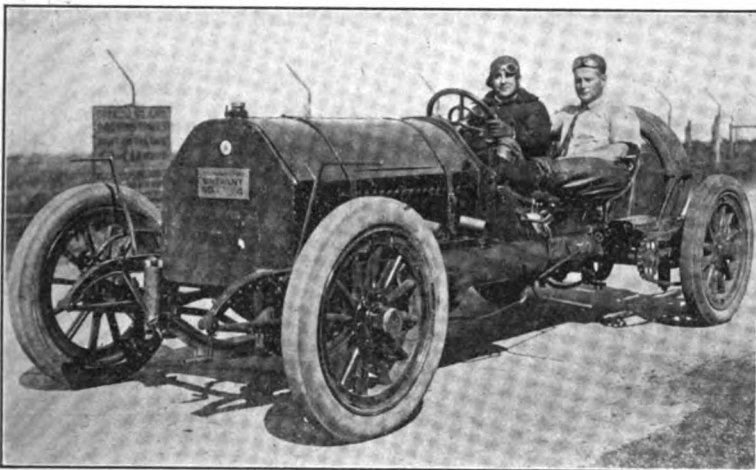
FOUR OF THE LIKELY CANDIDATES FOR THE CUP AND THE CARS THEY WILL DRIVE



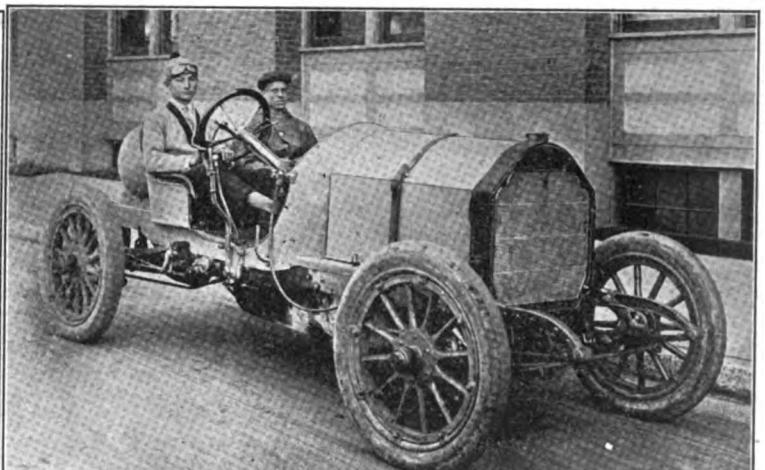
LOUIS A. DISBROW, ONE OF THE NATIONAL TEAM



WALTER JONES IN THE TWO-CYCLE AMPLEX

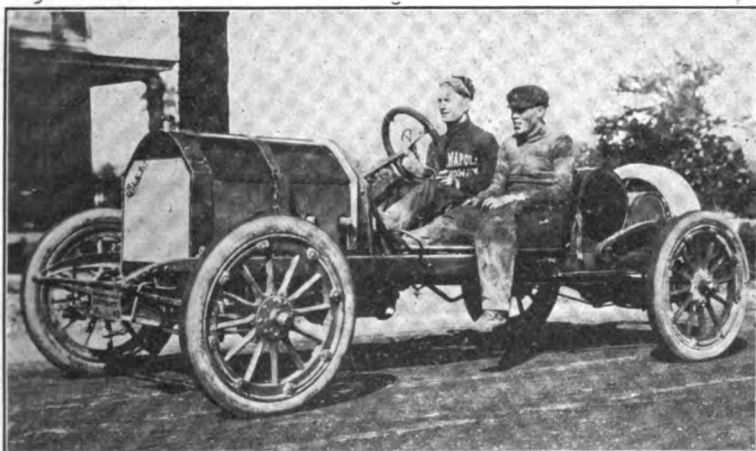


HARRY F. GRANT (ALCO), WINNER OF LAST YEAR'S RACE

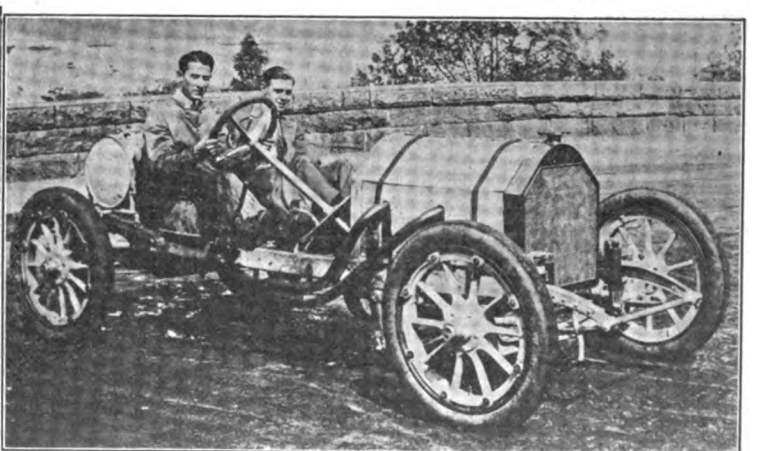


TOBIN DE HYMEL, THE STODDARD-DAYTON ENTRANT

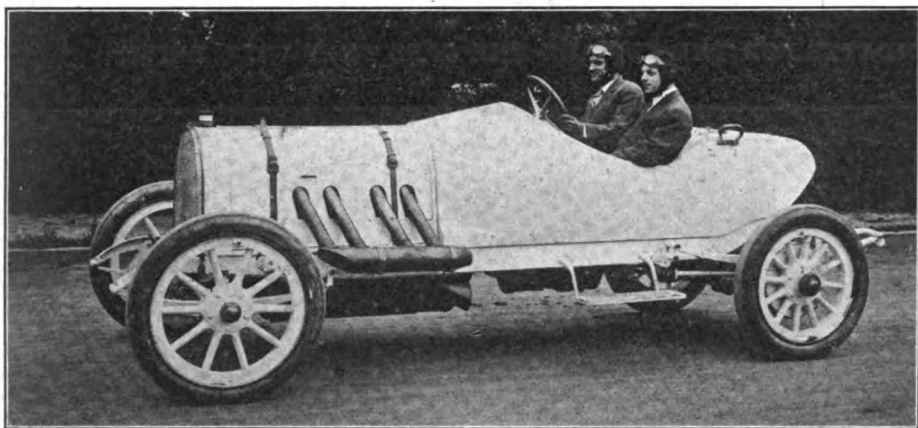
TWO OF THOSE WHO WILL COMPETE IN THE SMALL CAR EVENTS



HARRY ENDICOTT AND THE COLE HE WILL DRIVE



MARCEL BASLE AND HIS MARION MOUNT



THE POPE-HARTFORD TWINS—(1) BERT DINGLEY, DRIVER

to point where trolley is met; turn left on Broadway (macadam), follow Broadway over Long Island railroad tracks at Ozone Park to Leffert's avenue over Long Island railroad tracks to point where railroad tracks and trolley converge. Proceed one

lantic avenue, Brooklyn, and then proceed directly up Atlantic avenue to Bedford avenue, to Eastern parkway, which will readily be recognized by the Slocum equestrian monument at the intersection of Bedford avenue and Eastern parkway. At the



EDWARD A. HEARNE (BENZ)



HARRIS HANSHUE (APPERSON)



DAVID BRUCE-BROWN (BENZ)

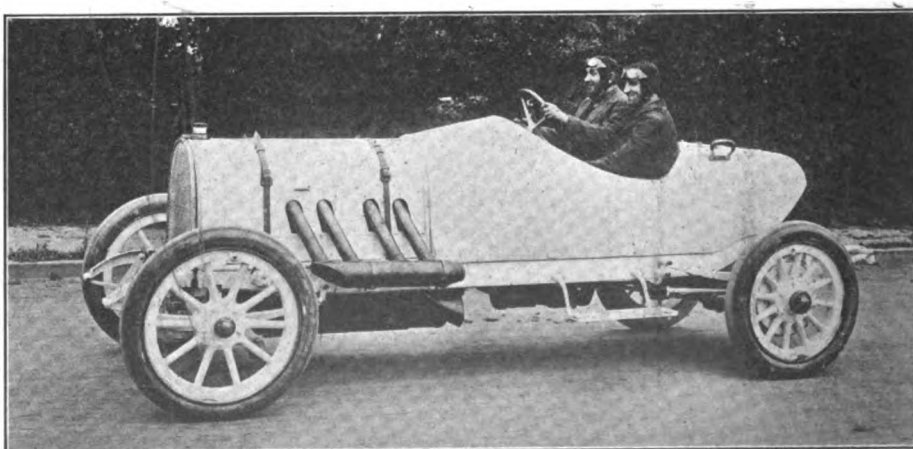
block, passing Carnegie Library to Hillside avenue. Turn right on Hillside avenue, passing under Long Island railroad; pass Louis Disbrow's garage, pass Peace Monument in Jamaica. Pass Jamaica Estates to Queens road (indicated by sign board), turn right. Follow Queens road to Jamaica avenue. Turn left one block, following trolley which bears to the right on Queens-Hempstead turnpike, passing Belmont Park, passing through Elmont and Franklin square to Hempstead. Keep straight on, passing new bank building on the right and Long Island railroad on the left, into the Bethpage turnpike. Follow Bethpage turnpike east to a road which has been oiled, at which turn there is an arrow indicating left turn to official grand stand and reserved parking space. (The route from Disbrow's garage is indicated by blue arrows 30 inches long and six inches wide bearing these words: "Motor Parkway Grand Stand.")

Motorists from Staten Island are advised to take South Ferry adjoining and close to Staten Island ferry, to foot of At-

Slocum statue turn left, proceeding as suggested for motorists from Brooklyn or via the Jamaica avenue route, which also is readily available.

All turns from the Bethpage turnpike north to the official grandstand and official reserved parking space will be indicated by

declares that the concern did not live up to its agreement, putting her to \$263 expense. She also claims damages on the ground that the local agent who sold the car disposed of others at less money than he charged her—an unusual outcome of alleged price cutting.



THE POPE-HARTFORD TWINS—(2) JACK FLEMING, DRIVER

yellow and black signs, which, on the nights before both races, will be illuminated by batteries of calcium lights. The road leading from Bethpage turnpike to the unreserved (fifty cents) field will also be illuminated by a battery of calcium lights. There will be no charge made for cars in this 50 cent admission field, which is unreserved.

#### Vanderbilt Racer in Odd Suit.

Ralph Beardsley, now more or less in the spotlight as a Vanderbilt race driver, is the central figure in two suits which his aunt, Mrs. Helen A. Boyd, of Highland Park, N. J., has brought against the Buick Motor Co. in the Supreme Court of that state. The cases are to be heard October 3d. Beardsley formerly drove a Buick racer which Mrs. Boyd asserts that she bought for her nephew, with the understanding that he was to be employed as a driver by the Buick company, which would pay for the maintenance of the car. She



**DEPALMA'S RECORD NOT REGULAR**

**Timing Device at Norristown Meet Too Crude for Approval—New Yorker was Almost the "Whole Show."**

Ralph DePalma was the whole show at the racemeet of the Norristown Automobile Club at Belmont Park, Narbeth, Pa., on Saturday last, 24th inst. George Robertson was to have shared the spotlight with him in a match race, and some 5,000 people who apparently had not heard that Robertson had been injured the day before in practice on the Vanderbilt Cup course gathered to see the duel that did not occur.

DePalma, however, did his best to entertain the crowd. He started in a handicap race and won it in hollow fashion; he drove his Fiat car an exhibition mile in 49½ seconds and later made a ten miles flight in 8:31½, which has been widely heralded as a record—a "dirt track record." But unfortunately the A. A. A. will not accept it. The Norristown club had no up-to-date timing apparatus, and made use of the home-made creation of a local electrician which was too crude to pass muster. Chairman Butler himself is authority for the statement that the record will not be booked.

The race which DePalma won was the five miles free-for-all. He allowed the other contestants 20 seconds starts, caught them all on the second mile and won as he pleased in 4:57¾. Tom Berger, Warren-Detroit, was the runner-up.

The other events did not fill well, but what they lacked in numbers was made up in exciting finishes. In the five miles for Class B, C. C. Fairman, J. D. Kerr and W. D. Morton, all in Kline-Kars, had a hammer and tongs fight all the way, Fairman finally winning in 10:44¾. In the ten miles for the same class, the same men "had it out" once more and again Fairman won, but by inches only. He also accounted for the ten miles free-for-all, making three victories for the day.

Tom Berger, who has a local reputation, added to it by winning another five miles contest in his Warren-Detroit, W. J. McFarland in an Otto being second and James Rockford in a Moon third. The summary:

Five miles, Class C—Won by Tom Berger, Warren-Detroit; second, W. J. McFarland, Otto; third, James Rockford, Moon. Time, 5:23¾.

Five miles, Class B—Won by C. C. Fairman Kline; second, James D. Kerr, Kline; third, W. D. Morton, Kline. Time, 5:28.

Ten miles, Class B—Won by C. C. Fairman, Kline; second, W. D. Morton, Kline; third, James D. Kerr, Kline. Time, 10:44¾.

Five miles free-for-all—Won by Ralph DePalma, Fiat (scratch); second, Tom Berger, Warren-Detroit (20 seconds); third,

G. Jones, Otto (20 seconds). Time, 4:57¾.

Ten miles free-for-all—Won by C. C. Fairman, Kline; second, J. D. Kerr, Kline; third, G. H. Jones, Otto. Time, 10:32¾.

**Chicago Prepares Its Endurance Contest.**

Five days instead of four have finally been decided upon for the 1,000 miles endurance contest of the Chicago Motor Club and November 7-11 inclusive are the dates which have been chosen. The daily journey thus will be 200 miles instead of 250 miles as originally proposed. The routing has not yet been made, but it is known that it will cover three states—Illinois, Indiana and Iowa. Five trophies are to be offered. There will be one for the touring car making the best showing, one for the best run-about score, and one for the make of car with the best total—a team affair in which a manufacturer with three cars entered can pick his two best scores. There will also be a trophy for fuel economy and another for the tire concern whose product makes the best showing. The entry fee will be graded. One car will cost \$100, the second car of the same make \$50, and the third one \$25.

**Asks President to View Philadelphia's Race.**

Mayor Reyburn, of Philadelphia, is doing his best to induce President Taft to cut out the golf links Saturday, October 8th in order to attend the third annual Fairmount Park automobile race as guest of the city. The mayor's letter emphasizes the attractions of the varied and picturesque course, also the fact that the fixture has become a household word, or two or three, and calls the attention of the great traveler to the fact that notwithstanding its contiguity he has not lately been in the Quaker City. Although the attendance has reached nearly 500,000 persons, the mayor assures the chief executive that there is always room for one more.

**Hungry Crew Ate the Confetti!**

Members of the Buffalo Automobile Co. are not the only ones whom confetti has helped out of difficulties. The Buffaloes made much of the fact that had they not dumped wads of "cold slaw" into certain bad holes on the route of their recent contest they might not have returned to tell the tale. But from St. Paul—the one in Minnesota—comes a yarn that goes the other "one better." In the St. Paul contest they used pop corn for confetti, and when the confetti car became mired in the mud, its crew was saved from hunger only by eating the confetti.

**Rain Drowns the Detroit Racemeet.**

The racemeet under the auspices of the Wolverine Automobile Club which was to have been held in Detroit in connection with the Michigan State Fair on Saturday last, 24th inst., was declared off because of rain.

**GREAT CROWD GREET'S OLDFIELD**

**He "Obliges" the Milwaukeeans by Doing Some Fast Work—Wins Hour Race and Cracks Records.**

The largest crowd in the history of automobile racing at Milwaukee turned out last Tuesday, 27th inst., at the state fair track for the annual meet of the Milwaukee Automobile Club. There were nearly 10,000 people in the grand stand alone, the great overflow taking up its stand on "Poor Man's Hill," and every other possible vantage point inside and outside the grounds. Barney Oldfield was there and was the star performer, and, subject to the approval of the A. A. A., he broke four "circular dirt track records," those for 15, 20 and 25 miles and for one hour.

Oldfield used Ben Kerscher's Darracq in his 25 miles time trial, in which he broke three of the records. He reached the 15 miles mark in 13:41¾—one-fifth of a second better than his old record—the 20 miles in 18:15½, and the 25 miles in 22:47. The two latter beat De Palma's records, the last named by 12 seconds.

The one hour race, in which the fourth record was set up, was the feature of the day. Oldfield, in a Knox, won, covering 60½ miles, against the 59 miles recently tallied at Brighton Beach.

The ten miles handicap proved the second best contest, which went to Nelson, a local driver, in a Pope-Hartford.

Only one heat of the five miles match race between Oldfield, in the Knox, and John Heber, in the Marion, was run, Oldfield winning by a few feet. Oldfield then whirled a mile in his big Benz, and cut the local time from 54 to 51 seconds. Ben Kerscher, having been injured at Detroit, was absent. The summary:

Ten miles, Division 1—Won by Fahr, Buick; second, Borsch, Warren-Detroit. Time, 10:31¾.

Ten miles, Division 2—Won by Fahr, Buick; second, Kent, Buick; third, Nelson, Pope-Hartford; fourth, Hughes, Fal. Time, 9:54¾.

Ten miles handicap—Won by Nelson, Pope-Hartford; second, Hughes, Fal; third, Borsch, Warren-Detroit; fourth, Kent, Buick; fifth, Heber, Marion. Time, 10:25.

Five miles match—Won by Oldfield, Knox; second, Heber, Marion. Time, 5:47¼.

One hour—Won by Oldfield, Knox, at 60½ miles; second, Nelson, Pope-Hartford; third, Fahr, Buick; fourth, Borsch, Warren-Detroit; fifth, Fisher, Buick; sixth, Hughes, Fal; seventh, Kent, Buick.

One mile time trial—Oldfield, Benz, in 51 seconds.

Twenty-five miles time trial—Oldfield, Darracq, in 22:47.

**"ACCORDING TO SHAKESPEARE"**

**Feminine Delver Into His Works Brings  
"Evidence" to Bear that He Foresaw  
Motoring Conditions.**

Those who assert that Shakespeare was not up to date don't know what they are talking about, according to a Wharton (Tex.) young woman. To demonstrate that the "immortal bard" was very much in advance of his day, she brings to bear these extracts from his writings:

Automobiles.—Fearful scouring doth choke the air with dust.—*Timon*, V-II.

Automobile Lamps.—Methought his eyes were two full moons.—*King Lear*, IV-VI.

Automobile Horn.—The horn, the horn, the lusty horn, is not a thing to laugh to scorn.—*As You Like It*, IV-II.

Gasolene.—The rankest compound of villainous smell that ever offended nostril.—*Merry Wives*, III-V.

Chauffeurs.—I'll come along and be thy waggoner, and while along with thee about the globe.—*Titus*, V-II.

Automobile Goggles.—Get thee glass eyes.—*King Lear*, IV-VI.

Automobile Caps.—These black masks proclaim an ensield beauty.—*Measure for Measure*, II-IV.

Automobile Veils.—Give me my veil; come, throw it o'er my face.—*Twelfth Night*, I-V.

Joy Riders.—I must become a borrower of the night, for a dark hour or twain.—*Macbeth*, III-I.

City Streets.—I do not without danger walks these streets.—*Twelfth Night*, III-III.

Country Roads.—Though our silence be drawn from us with cars.—*Timon*, V-II.

Mortgaged Automobile.—He, that dies pays all debts.—*Tempest*, III-II.

Automobile Races.—All the devils are here.—*Tempest*, I-II.

Speeding.—Here comes a pair of strange beasts, which in all tongues are called fools.—*As You Like It*, V-IV.

Pursued.—We may outrun by violent swiftness—and lose by overrunning.—*Henry*, VIII-I.

4-G-M.—Have a good eye, uncle, I can see a church by daylight.—*Much Ado About Nothing*, II-I.

Puncture.—I have done the deed. Didst thou hear the noise?—*Macbeth*, II-II.

Stuck.—He doth bestride the world like a colossus, and we petty men walk under his legs and peep about.—*Julius Caesar*, I-II.

Automobile Victim.—He jests at scars that never felt a wound.—*Romeo and Juliet*, II-II.

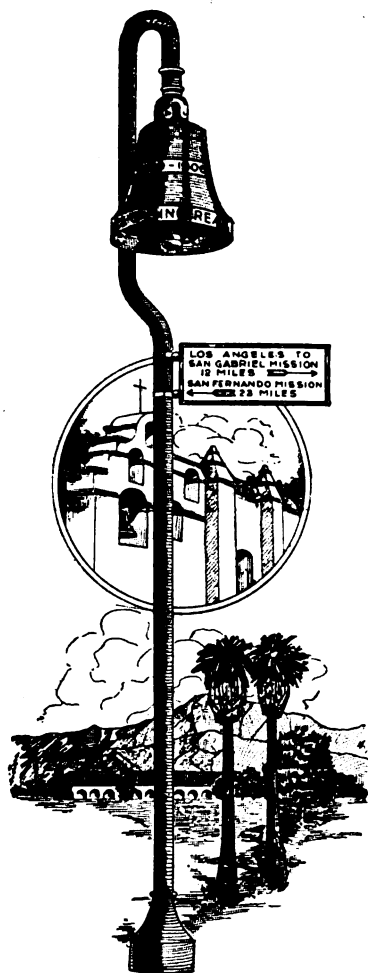
Mounted Police.—We will fetters put upon this felon, which goes too free footed.—*Hamlet*, III-III.

Pinched.—We plead like angels.—*Macbeth*, I-VII.

Judged.—The law hath not been dead, though it hath slept.—*Measure for Measure*, II-II.

**Making the Guide Board Picturesque.**

It is no longer sufficient that a guide post should "show the way," or even that it combines with utility the artistic. Another attribute is imperative, at least in California; there it must be melodious, also. This effect is due to the action of the supervisors



of Los Angeles, Ventura and Santa Barbara counties who some time since granted to a real estate association the privilege of marking the El Camino Real (the King's Highway) road by artistic bell guide posts. In Los Angeles the bells are familiar to all travelers, 36 of them being scattered throughout the county, while 14 not long since were put up in Ventura county; there are a few others in Orange county, Santa Barbara, Santa Clara, Monterey and San Francisco and 20 more are to be erected. The bells are counterparts of the Mission bells poetically handed down since the Spanish occupation. They are so suspended from metallic staffs about 18 feet high that even a gentle wind is sufficient to tinkle them. Below the bell a guide board is clamped to the post. Their picturesqueness is shown by the accompanying illustration.

**MOTORISTS ARE SQUEEZED AGAIN**

**British Government Lifts Their Taxation  
Almost Sky High—Prohibitive Rates  
on High Powered Cars.**

While there were but few 60 horsepower cars in use upon the highways of Great Britain, there are likely to be still fewer of them as a result of the new English motor vehicle law which went into effect September 1st. This law puts an almost prohibitive tax upon high-powered cars, jumping in geometrical progression from \$52.50 for 40 horsepower cars to \$105 for 60, and \$210 for those of more than 60 horsepower. Cablegrams assert that automobiles of from 40 horsepower upward now are at a discount—that they are being thrown upon the market almost regardless of price, some new highclass cars costing \$5,000 being offered for \$1,500 to \$2,000, not by some second hand dealer, but by the manufacturer himself. According to the same sources, the favorite car of Great Britain is the fifteen horsepower touring car, and since the passage of the new law the increase in production of the medium powered, medium priced vehicles has been remarkable. The old tax scale provided for a tax of \$10.50 on an automobile not exceeding one ton in weight, and \$21 in the case of a car of more than one and less than two tons, while the new scale is as follows:

Motor bicycle or tricycle, any horsepower, \$5.

Motor car not exceeding six and one-half horsepower, \$10.50.

Motor car exceeding six and one-half, but not exceeding twelve horsepower, \$15.75.

Motor car exceeding twelve, but not exceeding sixteen horsepower, \$21.

Motor car exceeding sixteen, but not exceeding twenty-six horsepower, \$31.50.

Motor car exceeding twenty-six, but not exceeding thirty-three horsepower, \$42.

Motor car exceeding thirty-three, but not exceeding forty horsepower, \$52.50.

Motor car exceeding forty, but not exceeding sixty horsepower, \$105.

Motor car exceeding sixty horsepower, \$210.

**Touring Kink to Protect Varnish.**

When it becomes necessary to carry suit cases or other impedimenta within the tonneau it is a good plan to affix a fairly heavy pad of canvas or carpet to the back of the front seat in order to protect the varnish. Where much touring is to be done and it is customary to carry the hand luggage in such a way, suitable strap hooks may be secured to the back of the seat and the pad fitted with loops on the back side through which the straps may be passed.



**BUILDING FOR BUSINESS NEEDS****Progress Shown by Consideration for  
Service Requirements—Seeking  
for Flexibility.**

Following the example of the stately and illustrious Col. Sellers, the discoverer of any commercial opportunity is apt to measure its possibilities in terms of population rather than on a basis of conservative probability. It is more or less so in the case of the commercial motor vehicle—the over-sanguine automobile enthusiast is apt to think he sees a sales opportunity whenever he beholds a horse and wagon, whereas he only witnesses a possible opportunity to demonstrate the advantages of motor vehicle transportation to a probably unwilling listener. This optimistic feeling, of course, is a part of the old spirit that is wearing away very rapidly; the disappointment that follows its suppression is one of the growing pains that auger hopefully for the future.

Automobile manufacturers who are paying close attention to the business vehicle are learning many things, and one of the most promising signs of their increasing wisdom is the way in which they are beginning to adapt their products to the manifold requirements of the different users, instead of attempting to force the users to adapt their services to fit certain fixed specifications. Flexibility is the word that best expresses the idea; for in order to meet with entire success, the commercial vehicle must be adaptable to a wide variety of uses, both freight and passenger. The manufacturer's aim must be to produce the least number of standard parts, combinations and units that shall be susceptible to assemblage in the greatest number of vehicular products.

It has taken several years clearly to differentiate between the commercial positions of the pleasure and business vehicles. It is now understood that they are at the opposite ends of the scale. The car that is used solely for purposes of recreation is salable, roughly speaking, to anyone who has the price; while the vehicle that is to be used entirely in a business way may be sold only on the basis of a conviction that it will prove an economy over existing transportation methods. A terse and unkindly way of putting it would be to say that one class of machine is intended to assist in the distribution of wealth and the other in its conversation.

Of course, the dividing line between the extremes is indefinite. A three-ton truck used for the purposes of a Sunday school picnic becomes, for the time being, a pleasure car, while many a high-speed runabout is employed by its owner chiefly in utilitarian and business ways. But the dis-

inction is important as illustrative of the real basis of the business wagon, whether intended for freight or passenger transportation. As automobile manufacturers come to this way of thinking they are able to take a sane and un-Sellerslike view of the opportunity that is open in the building and selling of motor cars for business and industrial purposes.

One of the most important points in connection with the installation of motor vehicle systems is the requirement that they shall "fit" the business which they are to serve. This is where the individual service differs from that of the common carriers. The latter determine the nature of their service on the basis of their total run of business; the individual patron must adapt himself to meet the resulting schedules. The power wagon user, on the other hand, adopts a system that is absolutely pliable and that may be adapted to his exact needs in every respect—at least that is the ideal.

One manufacturer may find it necessary to transport one and a half tons of empty paper boxes two miles over cobble stones in the course of the average working day; another may have to haul 15 tons of steel castings five miles over rough country roads and make four or five trips a day; another may be interested in a variety of lines, such that the motor vehicles that he employs will be forced to carry bulky loads at one time and heavy loads of small bulk at another. The service of one user may lie entirely over city pavements with no particular grades; another may be forced to use dirt roads; a third may be located in a hill country, and a fourth may be in need of quick service above all else. Yet in terms of bulk and weight of loads all four may exhibit similar requirements at the outset.

Such differences in demand suggest a portion of the various elements in the manufacturer's problem when he sets out to build commercial vehicles. So long as the motor wagon be considered in the light of a common carrier system in miniature, such variations in requirement need not be considered, but when the motor vehicle is considered in the light of a commercial utility that needs to be nicely fitted into the business of every individual, no matter what his line, no matter how limited or how extensive his need may be, it is essential that the very last details of his work be studied with care and selection made accordingly. By way of corollary, it follows that the prospective user who has not studied his business impartially, who is not familiar with the details of automobile operation, is not likely to be able to determine wisely the nature of the equipment that is best suited to his needs.

As indicating how some of the more sagacious manufacturers of commercial vehicles look at it, it is interesting to observe the marked differences in methods

of advertising and cataloguing pleasure cars and trucks. In the case of the former the possible customer is openly invited to investigate for himself the merits of the proposition and to purchase. Where the commercial vehicle is concerned, however, in several instances the prospect is urged not to buy hastily, but to consult with the manufacturer's expert salesman.

In the back of the catalog will be found, not a "clinching" selling argument, but a series of such suggestive questions such as these:

"How many horse-drawn vehicles are in your employ? What capacity are they? How many horses do you keep for each vehicle? In what sized packages are your goods delivered? How many times in each 24 hours does each vehicle leave your place of business loaded for a delivery trip? How many miles does it cover in one trip? How many stops does it make in one trip? State what kind of streets you must cover. What per cent. grades? Do you have extreme mud or heavy snow? How many men accompany the driver? Does your driver collect money or take receipts when he delivers? If you employ motors what radius of territory do you wish to cover?"

In response to such questions, the up-to-date manufacturer learns enough of the prospect's business to enable him to determine wisely the general nature and extent of the equipment that is required. Not all commercial car builders follow this excellent plan, it is true, but the exigencies of the business fast are increasing the number of those who do carry out the general idea in one way or another.

But what is quite as important as the details of the selling plan is the effect that such a course is having, and is likely to continue to have in the future, upon design. The broad question at once follows: "Does the adaptation of the motor truck to specific uses involve the partial or complete suppression of the stock machine? Undoubtedly it has a most important bearing on the continuance of the complete stock machine; that much already is evident. So, it must have an equally important bearing upon the industry in general; for in reducing the number of stock specifications and increasing the amount of special work on each lot of machines sold, the chance for profit is diminished.

Owing to differences in the bulk of different commodities body sizes cannot be standardized on a basis of net load. Therefore, body design must be carried out largely in accordance with the nature of the loads to be carried. This involves flexibility in specifications sufficient to allow variations in wheel base, overhang and width of load platform.

Similarly, because of the difference in highway conditions in different localities, it is somewhat questionable whether it is possible absolutely to standardize the ratio of engine power to useful load. Indeed,

even three or four years ago one manufacturer announced the plan of adapting engine capacity to load and road requirements at the very outset, being assisted in doing so by the production of several engines of different power that were interchangeable in the standard sub-frame used on all his truck chassis.

Even the question of useful vehicle speeds must be determined to some extent by local conditions, the ratio of final transmission thus depending on the exact nature of the use to which the vehicle is to be put. The same applies to suspension, control, clearance and tire equipment in greater or less degree.

Expressing one method of solution, a New England truck builder has adopted the phrase "master unit system," and divides his product into these five components: first, the engine; second, the change gear; third, the countershaft; fourth, the chassis and springs; fifth, the axles and wheels. By paying suitable attention to interchangeability among these units it is evident that a wide variety of vehicle purpose may be served with a maximum of manufacturing economy. In the unostentatious, though effective, progress of the electric vehicle much the same sort of flexibility and production economy has come into service.

This by no means involves the entire elimination of the stock vehicle; rather, so to speak, the creation of a new stock type for each new variety of service encountered. For it develops upon consideration, that as the business of all express companies, all foundrymen, all tire manufacturers and all flour and feed merchants is closely similar a certain sort of standardization by goods is possible. Such standardization applies to body sizes and structure and to certain other factors as well.

Viewing the commercial problem in this way, its apparent profits begin to dwindle and it loses some of the attractiveness that it possessed at the outset and becomes just an ordinary clean business proposition with most of the glamor left out. Col. Sellers' way of looking at it would have been something like this:

"The city of New York employs 1,000 horses in the business of cleaning its streets and removing potato peelings from your back yard and mine. Now one truck will replace three horses, so there are 333 trucks sold right away."

The modern commercial vehicle salesman begins by figuring, not how many trucks can be placed in a given location, but how few trucks can be employed to accomplish a given amount of work. To Col. Sellers's way of thinking, this would be a suicidal business method, perhaps, but at all events, the salesman who follows these lines and the manufacturer under whose instructions he works are finding this a profitable and not unappreciated method of procedure.

## HOLDS THE MAKERS RESPONSIBLE

**Manufacturer of Well-Known Accessory  
Discusses the Price-Cutting Evil—  
Offers Effective Remedy.**

Editor of the Motor World:

This letter has to do with a matter of such pressing importance to manufacturers of automobile accessories that I doubt if any other general problem today quite takes its place.

Briefly, I refer to price cutting.

As you are well aware, the cut rate house is fast establishing itself throughout the country, wherever trade is best. Its existence, already a serious menace to the regular dealer, whose business has been built up steadily through fair dealing and regular methods, is likewise certain to prove disastrous in the end to the manufacturer.

But there is an ethical as well as a business side to the matter.

The manufacturer looks to the regular and legitimate dealer to handle his product and sell it at list prices—to maintain strictly these prices, moreover, to their mutual advantage, and yet—around the corner, perhaps, from the regular dealer—a cut rate house is offering the same article, and probably advertising it extensively, at a reduced price.

What is the regular dealer to do? What can he do except to pit good reputation and good salesmanship against the heavier odds of low prices? But what of the manufacturer—he who asks and expects the dealer to uphold his list prices? What is he doing?

As a matter of fact the solution of the difficulty is altogether up to the manufacturer.

Ethically, the manufacturer ought to be responsible. His duty to the dealer doesn't cease when goods are sold and shipped. He should see to it that the dealer makes a legitimate profit and is given the same protection that he himself expects from the dealer. Personally, I believe that the dealer is fully within his rights in demanding such protection.

But what I want to prove here is: that every manufacturer, provided only that his product is patented, can effectively stop price cutting, and that, moreover, it is to his own best business interests to stop it.

This company has perfected and had in successful operation for some time a license system, consisting of license labels, tags and bill-heads, all governing the sale of the Klaxon warning signals.

A complete description of the system and its operation cannot be given here, for lack of space, but I will gladly send same, together with specimen labels, etc., to any manufacturer who is interested. With

simple changes it can be applied to any patented accessory.

As to the complete effectiveness of this system I can only say that today, so far as this company is aware, it is impossible to obtain a Klaxon under its list price from any house anywhere.

During the summer past we issued injunctions against ten firms in New York, two in Philadelphia and one in Pittsburg. As a result of these injunctions the above dealers are effectively prohibited from dealing in Klaxon signals at any price, from cataloging them or from securing them from any source whatever.

This summary action may, at first thought, strike the manufacturer as bad business. As a matter of fact, we have proven it to be decidedly good business. The comparatively small trade which it lost for us has been made up many times over by increased business of permanent value from firms of real merit and stability.

Logically and practically that is the way the matter is bound to work out.

We have on file a large number of letters from the trade in Boston, Philadelphia, New York, etc., all of them incited by our campaign against price-cutting, and all of them testifying warmly to their appreciation of our efforts in their behalf.

A manufacturer has only to glance over these letters to convince himself of how vital the issue is to the dealer.

The matter is pressing and the solution is possible and practicable. I trust that the manufacturers will appreciate both these statements and unite at once to protect their trade and themselves.

Yours respectfully,  
F. HALLETT LOVELL, JR.,  
President Lovell-McConnell Mfg. Co.

## Discriminating Between Storage Customers.

Because some of its patrons who store cars in its garage go elsewhere to purchase their gasoline, oil and grease, the Van Automobile Co., of St. Louis, Mo., has given notice that henceforth all such patrons must pay 33½ per cent. more for storage than those who buy their supplies from the Van company. Other St. Louis garagemen are said to contemplate similar discrimination, the profit from the sale of gasoline and oil representing a snug sum in the course of a year, which they are reluctant to sacrifice.

## Street Car Strikers Form Bus Company.

Having failed to win their fight, which twice required that militia be called out, the striking street car employees of Columbus, Ohio, have adopted another means of discomfiting the local traction magnates. They have organized the Columbus Motor Car Transportation Co., capital \$100,000, for the purpose of operating a line of motor buses in competition with the street cars—a novel method of fighting "capital" with its most trusted weapon.

**"REACTION" IN AMERICA DID IT!**

**Caused British Rubber Shares to Slump,  
It Did—Light on This and Other  
Rubber Situations.**

That a "reaction" in the automobile industry of the United States in some way may be responsible for the decline of the rubber market at the present time, was the interesting suggestion offered by the chairman of the Malacca Rubber Plantations Co., of London, on the occasion of its recent annual stockholders' meeting. The Malacca company being one of those concerns that had been held up to investors as a high velocity vehicle to rapid wealth, the showing made at the end of its fiscal year was such as to create consternation among the stockholders. Their fortunes were not being materially increased. The consequence was that the chairman was put to the task of giving a somewhat long-winded and highly ingenious explanation. Incidentally he paid high tribute to commercial enterprise in America "where," to use his words, "there can be no such thing as a permanent setback in any trade."

"Three or four months ago no doubt was entertained as to a maintenance of high values for this year and next year," said the chairman in the course of his "explanation." "Sales of 1911 and even 1912 crops were easily negotiable, and a basis for the valuation of the shares of producing companies was provided upon which all speculation rested. Without any warning, and for no apparent reason, the price of plantation rubber has fallen in the course of four months from 12s. to 7s. per pound, and in the meanwhile there has been no unexpected increase in production."

"From all that one hears the European manufacturers of motor cars are extremely busy, but in the United States a period of unprecedented and feverish activity in the automobile trade has been followed by a reaction. Is there anybody in this room who doubts that reaction will be followed by a recovery? In the United States there can be no such thing as a permanent setback in any trade—(hear, hear)—and so far as the motor industry there is concerned it would appear to be capable of great expansion."

"When hard, fine Para sold at 12s. per pound this price created so little suspicion in the mind of the buyer that he willingly paid a premium for plantation rubber, because of its greater purity, hard fine Para containing about 15 per cent. of water or impurities. Today, when the price of hard fine Para is 8s. the buyer is so convinced that this price is unreal, fictitious, nominal, and the mere consequences of wicked manipulation, that he will not consider it to be a true value, and proceeds to take a

shilling off that price in order to arrive at the real value of plantation rubber.

"Now, whatever the price of rubber in the more immediate future is to be, it is obvious that the price of the shares of a producing company cannot remain unaffected while the commodity which they sell falls nearly 50 per cent. in the course of a few months and in so mysterious a fashion. For the fall in rubber, which must inevitably occur in the course of time as a legitimate consequence of larger production no company is better prepared than the Malacca Company. (Hear, hear.)"

The "hear, hears" are instructive, and the innocent surprise of the chairman, over the fact that consumers who bought enthusiastically at top prices should have been shy buyers at the bottom, is almost amusing. The meeting ended oddly. One wicked shareholder, after making caustic remarks, moved a resolution of want of confidence in the directors. The chairman ruled it out of order. Another shareholder moved a resolution of confidence, but the wicked shareholder's friends demanded that that resolution too should be excluded, and it was done.

Incidentally, as shedding a somewhat different light on the situation, it may be stated as the experience of certain American rubber manufacturers that, insofar as the local market is concerned, nominal price quotations have little real effect on actual sales in considerable amounts. When it is endeavored to take advantage of a low quotation by large purchases, for example, it is said that prices have been found subject to sudden and unexplained fluctuations, which always are sharply upward. Hence although fine Para is now quoted in New York as low as \$1.57 per pound, the manufacturers insist that as far as affecting their manufacturing costs is concerned, it might as well be quoted at either \$1 or \$3 per pound. In other words, the actual volume of rubber sales in New York is held to be so small that it cannot be said to create a "market" in the sense in which the term usually is applied in dealing with the transfer of staples in large bulk.

**Dust Shield and Adjustable Rear Seats.**

By way of a novelty in body design a British builder lately has hit upon the expedient of erecting a glass dust shield at the back of the tonneau. In the original design the glass follows the contour of the body, which otherwise is of the true torpedo type, and is high enough to afford protection for the heads of the passengers. In addition to this feature, the body in question is provided with adjustable rear seats. The seats are individual in form and may be varied in both height above the floor and in inclination, while, upon occasion, they may be reversed, so that the occupants may sit facing to the rear if they so desire.

**NOW RIVALS GASOLENE FOR FUEL**

**Phenomenal Increase in the Use of a Coal  
Distillate—Its Cheapness and Volatility Recommend It.**

While American and Russian exporters of gasoline are fighting tooth and nail for the trade of Continental Europe, and still more violently for that of the United Kingdom, cutting prices right and left, there has arisen a rival to gasoline, which bids fair to play an important part in the future development of the automobile and motor-cycle industry. As J. I. C. Clarke, publicity manager of the Standard Oil Co., said when the question of gasoline supply recently was put up to him, "there is more than enough of the raw product in sight; the difficulty lies in the lack of facilities for distillation of the crude oil." This difficulty of distilling gasoline in sufficient quantities is one which is likely to continue for some time to come.

The recent phenomenal growth of the benzene industry in Germany and the United Kingdom seems, however, to point a way out of the difficulty. Benzene—not benzine—is obtained by destructive distillation of coal; every ton of coal yields nearly two gallons of rectified benzene. Its chemical formula is C<sub>6</sub>H<sub>6</sub> and its chemical name is Benzol. It is the nucleus of the almost unlimited number of organic compounds which make up all organic life, and which are all derivatives of C<sub>6</sub>H<sub>6</sub>. Benzene, however, is an entirely different product. It is manufactured by fractional distillation of crude petroleum and is slightly less volatile than gasoline, which also is one of the products of distillation of petroleum.

The new gasoline is not what may be called a "dark horse." It has been known to the chemical industry for a long time; it is being used by millions of people daily all over the world; but in its application to internal combustion engines it is something of a novelty. For several years benzene has been used in Germany, where it is produced in great quantities, for the purpose of driving motors, automobiles and motor boats, as well as for use in many trades as a general cleansing liquid and in the manufacture of aniline colors. The recent rise in the price of gasoline has given an enormous impetus to the manufacture of benzene, and now the time has come when it not only is imported into France, but threatens to drive out of the French market the gasoline made in America, Roumania, Galicia and Russia.

The gasoline situation in France is an extremely interesting one. There is a duty of 12.50 frs. per 100 kilos (or \$22.50 per ton of 390 gallons) on gasoline manufactured from petroleum. The words "man-

ufactured from petroleum" constitute the joker in the tariff law, for by means of it the 37,000 tons of rectified benzene (90 degrees) which enter into France every year over the German frontier are admitted free of duty, and thereby enabled to compete successfully with the gasolene imported from America. Benzene costs in Paris about 18 francs per 100 kilograms, or approximately 10 cents per gallon, while gasolene costs at least 20 cents a gallon. France consumes annually 19,000,000 gal-

### DEVELOPS NEW DUMPING BODY

**White Produces Special Truck Equipment for Coal and Gravel Haulage—Adopted by New York Contractor.**

After considerable study of a problem, which is far more involved than might appear, the White Co., Cleveland, Ohio, has developed a new form of dumping body for its gasolene truck, the vehicle now

In hauling wet ashes from a power house on the Harlem river at 224th street to a new street which is being filled at Broadway and 240th street, the truck is called upon to transport a load of seven cubic feet a distance of more than a mile. Since being put into service the machine has averaged from 10 to 12 trips per day.

The regular horse drawn equipment which previously had been employed on the work was able to take care of only three and one-half cubic yards of ashes per trip, making on the average from five to six trips a day. The motor truck thus has done four times the work of the horse drawn unit, or, in other words, it has replaced four teams.

As the accompanying illustrations show, the body is of the end-gate type and is built in gondola form. In discharging its load the body is slid back on the chassis until it overbalances and tilts back over the rear of the frame.

### Planning More Motor Truck Tests.

It is getting to be really fashionable to conduct a motor truck test. Following the recent "endurance" affair for commercial vehicles in Philadelphia under newspaper auspices, as noted last week, William R. Hearst saw a beacon and announced similar affairs in Boston and New York, under the lead of his dailies in those cities. There were indications also that he intended to gain publicity and advertising of the same sort along the other links of his chain in San Francisco, Los Angeles and Chicago.



NEW WHITE DUMPING TRUCK LOADING FROM A CHUTE

lons, 14,000,000 of which are imported from other countries.

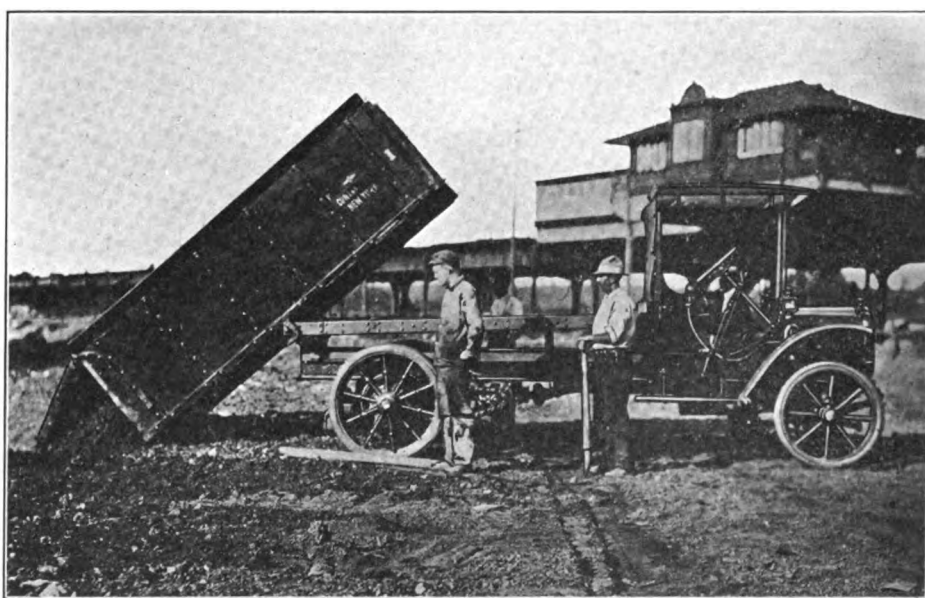
There is no doubt but that benzene could be manufactured in the United States just as cheap as or even cheaper than in Germany. The coal fields in Pennsylvania offer unlimited quantities of coal of poor quality which is particularly suited to distillation. The products, benzene, tar and coke, always are valuable. There really is no need of fearing a famine in gasolene, for benzene from coal tar can be produced easily and of a high quality.

The benzene made of coal tar differs in many respects from the present commercial gasolene. In the first place it is far more easily evaporated. Carburation is therefore much more thorough and easy. Being free from impurities, it leaves less residue after combustion.

The present production of benzene is distributed as follows: England and Wales, 13,650,000 gallons; France, 5,070,000 gallons; Germany, 27,300,000 gallons.

### Makes Buffer for Rear of Cars.

The Rear-End Buffer Co. is the style of a new concern which has commenced business at 1777 Broadway, New York. As its title indicates, it is marketing a buffer designed to prevent damage to the backs of cars from rear-end collisions.



SHOWING THE TRUCK DISCHARGING ITS LOAD

having been in successful operation for some two months in New York City. This style of body is intended especially for the handling of coal, ashes, gravel and the like, and the first vehicle of its class at present is being employed by the firm of McDonald & Barry, which has a contract with the city.

It appears, however, that he is to be forestalled in the city by the Golden Gate, for the San Francisco Call announces such a contest, in which the San Francisco Motor Club will co-operate. No date for the affair has yet been named, which indicates that great celerity was made in heading off Mr. Hearst.

**MAKING PATTERNS BY NEW METHOD**

**System that Greatly Facilitates Process of Moulding—How it Operates and Compares with Usual Methods.**

Because so much attention has been drawn to the manufacturing economies that have resulted from the development of new and improved machinery it may not be generally known that almost equally important improvements have been made in automobile production in other departments than the machine shop. No more sweeping benefits have resulted than from intelligent study of metallurgical problems, and in this connection ordinary foundry work, particularly in the duplication of large numbers of small castings. Such progress has not always been at the hands of independent experts, but frequently has resulted directly in the automobile maker's plant.

A pertinent example is the adoption of a new method of pattern making by the Maxwell-Briscoe Motor Co., incidental to the recent installation of new machinery and equipment at the Tarrytown, N. Y., plant. The method, which is the invention of Hugh McPhee, superintendent of the Maxwell foundry, has proved so successful in experimental service that a permanent department has been created for its employment, while a new building, especially equipped for aluminum casting, is being added to the bronze and brass foundry in order to accommodate it.

The duplication of small castings naturally is expedited by the use of moulding machines in which the hand labor of "rid-dling," or sifting, the sand over the pattern, as it lies within the flask on the moulding board and then of "ramming" it firmly into place, is performed by mechanical means. By the hand method, one section of the flask, or sand box, is inverted on the moulding board with half of the wooden or metal pattern laid flat upon the board and the sand rammed hard down around it until it is packed sufficiently hard so that the "nowel," as the lower section of the flask is called, can be capsized without disturbing the pattern. The remainder of the pattern then is superposed on the part already embedded in the sand, the matching of surfaces which, in the casting, are to be continuous, being secured by means of dowel pins and sprockets in the two parts of the pattern. Afterward, the upper portion of the flask, known as the "cope," is affixed to the drag and sand rammed into place around the exposed portion of the pattern. When the two portions of the flask are separated thereafter the sections of the pattern likewise separate and each can be "drawn" from the sand, leaving a clear imprint in each part of the flask which, when the two again are matched, will leave

a perfect matrix for the reception of the molten metal in forming the casting.

In the match plate method of machine moulding, this process is rendered much more rapid by duplicating the patterns in metal and attaching corresponding parts to flat plates that form the moulding board upon which the flask sections are placed and the respective halves of the mould prepared. This greatly facilitates the moulding process, the most laborious and hence the most expensive portion of foundry processes, and renders possible the production of uniform castings in casting a great number of small and similar pieces.

The ordinary match plate process in its simplest form, however, fails to be satisfactory when parts are to be cast that have projecting bosses or lugs that do not "part" on the center line—in other words, where there are projections that would overhang in the sand, the simple plate process is not available. It is a modification of this method that has been worked out for use in the Maxwell foundry.

In the McPhee system a master pattern of the required casting first is made in wood. From this enough white metal duplicate castings are made to fill the flask.

By the McPhee system patterns with an uneven parting line are as easily moulded as are those that have a straight parting line, for it is nothing more nor less than a method of mounting the individual patterns on the plate by a special casting, rather than a mechanical fastening process. A master pattern of the required casting first is made of wood. From this enough white metal duplicates are cast to fill the flask in which the moulding is to be done.

A perfect mould of these patterns, both nowel and cope, is then rammed up, and after taking apart the flask and drawing the patterns metal is poured into each impression separately until it is filled flush with the parting line. This is done in each half of the flask and results in a series of half-patterns together with "prints" that correspond to irregularities in the parting line.

Iron frames taking the place of the plates on which the patterns generally are mounted for the machine moulding process then are placed on each half of the flask and a composition poured in completely filling all open spaces. The frames are so formed that the metal is held in place, cross bars acting as a reinforcement for the composition and stiffening the entire plate. The same process also serves to weld the demi-patterns and prints firmly into the frames, and automatically to ensure their exact position with relation to the flask, and so to the duplicate patterns in the other section, which must match perfectly when the two halves are joined in order to complete the mould. When this is done, of course projections on one section that were formed by irregularities in the parting line exactly fit corresponding depressions in the

other section, leaving the open matrix in the exact form required to produce the desired castings.

Even where the plate moulding system is employed on the bench, exactly as plain patterns would be, a great saving in expense is brought about, since it is possible to mould a half dozen or more parts in the time that otherwise would be required in moulding a single piece. But when the plates are used in the moulding machines the work is done so much more rapidly that the extra cost of the patternwork and the machine is wiped out and an enormous saving in final cost achieved. Add to this that the plate-moulded castings are far more uniform than those handled separately and the advantages both of the general process and of such refinement to it as that described as not hard to appreciate.

**Truck Test that Lasted 27 Days.**

Of 34 machines that started in the industrial vehicle trials organized by the Automobile Club of France, on August 12th, no less than 28 finished the extended test, but the winners have not yet been declared. The contenders were De Dion, Latil, Peugeot, Delahaye, Panhard, Berliet and Vinot vehicles, and two Malicet-Blin. Of all the tests in the long series of annual events conducted by the French club, this has been the least appealing to the general public, owing to its technical nature; nor is the condition materially remedied by the delay occasioned by the tardy action of the committee in charge, which still is engaged in working out the fuel and oil consumption records of the entrants in order to determine the winners. Unlike the "endurance tests" promoted by some American newspapers, this French trial was a very severe one, extending over four weeks.

**Nightwork that Led to Jail.**

Working at night may be a commendable act when performed by a young man anxious to make a little extra money, but when carried to extremes is likely to land the over-anxious one in jail. At least that was the experience of Harry Konover, of Trenton, N. J. He was employed as machinist in a garage, and after his regular hours did odd repair jobs all over the town. He, however, was somewhat liberal in his views, for he utilized his employer's supplies, tools, accessories, etc., in making these repairs or replacements, with the net result that he was arrested on complaint of the garage owner, the Mercer Automobile Co., charged with grand larceny of \$200 worth of tires, magnetos and lamps.

**Reed that Changes Tone of Horns.**

The General Novelty Mfg. Co., 3972 Olive street, St. Louis, Mo., is marketing what is styled Bishop's bullfrog horn reed, which is designed to render the tone of bulb horns sharper and more commanding. The reed is applicable to all sizes of horns.



## FEW CHANGES IN THE THOMAS

**Buffalo Manufacturer Has Closed-Front Bodies, of Course, but Mechanical Essentials Remain Unaltered.**

Although it is now two and a half years since a half dozen motor cars commenced the great and only New York to Paris race, the memory of the feat still lingers and the prestige that the winning Thomas car achieved by outstripping its competitors continues to shed luster on the reputation of the E. R. Thomas Motor Co., of Buffalo, N. Y. And it is noteworthy that although sundry new features have been added to the line and alterations made which are by no means of minor importance, the general construction of the machine remains about the same as that embodied in the round-the-world model. Indeed, be-

Technically, this particular chassis model is in only its second year. In point of general design, method and materials of construction, and in respect to workmanship, however, it is strictly in the same class with the remainder of the extensive line. As for its individual characteristics, it has the long-stroke motor, the cylinder dimensions being  $4\frac{1}{4}$  by  $5\frac{1}{2}$  inch bore and stroke, the large valve areas and shaft drive that distinguish the smaller from the larger of the two Thomas six cylinder chassis models. As compared with last year, it has been altered but very slightly. A double jet form of carburetter now is used, in place of the single jet type formerly employed, and in consequence the speed range of the motor has been increased. The driving ratio now is 33-7 to 1, instead of 3 to 1, and the car speed range on high gear now is quoted at 3 to 55 miles an hour, instead of 5 to 55.

The equipment, which is very liberal, includes, uniformly for all models, the top,

ing the top and wind shield, luggage carrier, combination oil and electric side and tail lights and cigar light, together with a suitable equipment of the 40 horsepower line.

The Thomas town car chassis is a third important factor in the line and is suitable for use with either of the three favorite types of body that are considered especially adapted to city and suburban use, namely, the cab or brougham, landaulet and limousine. It is of the same form as hitherto, having the block type motor of four cylinder formation and 28 horsepower output; and the selective change gear, mounted in the waist, and double jointed propeller shaft that were adopted last year.

### Riga Doubles Its Demand for Cars.

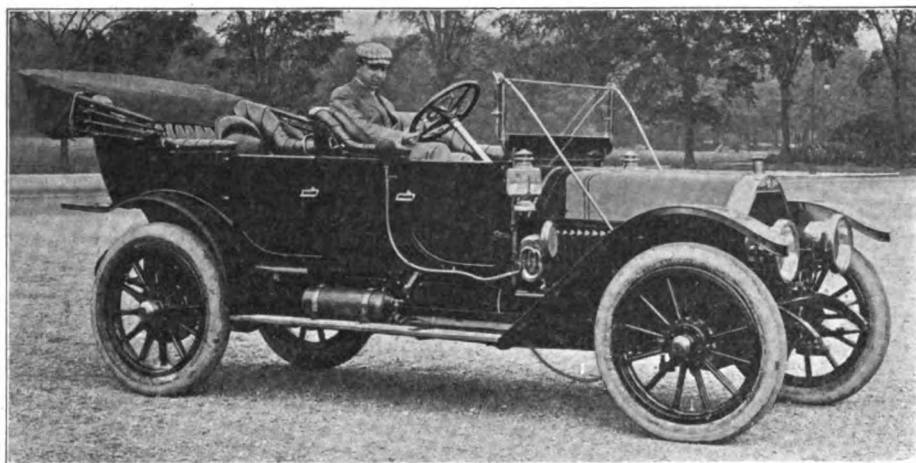
Although the number of automobiles in Riga, Russia, has doubled within a year, the American consul there reports that the United States has had no share in the business. There is not a single American automobile on the market, nor was it possible to sufficiently interest the local dealers in the American product. The principal reason appears to be the unfavorable conditions for payment. Nobody can be induced to pay cash in advance for a machine the durability of which is not sufficiently known, and this is the case with American machines. One American machine is well introduced in St. Petersburg because it has a special representative looking after the business in that city. This consulate has suggested that the St. Petersburg agent appoint a subagent in Riga.

### Moline Again Enlarging Its Plant.

Having completed the resurfacing of its quarter mile cement testing track, the Moline Automobile Co., Moline, Ill., is erecting in the center of the plot a large and thoroughly modern chassis testing building. This structure will incorporate a novel feature in that the heating pipes will be placed in the concrete flooring, thus providing against the cold floor so often complained of by workmen in cement buildings which are more or less open to the weather. The R. & V. Engineering Co., of Moline, which produces gas engines of all sorts and which is closely allied with the Moline Automobile Co., also is enlarging its plant.

### Why Grease Cups Should be Probed.

It is equally important with the regular filling of the grease cups, which discerning manufacturers now distribute so liberally about the machine, to see that the passages leading from the cups to the bearings that they feed are free from obstruction. It is a good plan occasionally to run a wire through the hole in the bottom of the cup and down into the duct to which it leads in order to make sure that it is not clogged with hardened grease or some more serious impediment.



THE NEW THOMAS "6-40" CLOSED FRONT TOURING CAR

tween the models announced for fall and spring delivery and those produced during the past spring and summer, there are but few points of distinction.

As is the case in so many instances just now, the chief element of novelty in the so-called "new" models, lies in the adoption of closed front bodies, either in the outright torpedo form or in the rationalized four door touring car equipment. As in all the Thomas products the new bodies that have been built for the more radical class of customers reveal not a little ingenuity of line and finish, though introducing no very startling divergence from what may be termed standard body design. The accompanying illustration shows one of the new "6-40" cars, E. L. Thomas, general manager of the Thomas company, seated behind the wheel. The same general effect as is here produced is secured in the mounting of both the seven and five passenger closed front cars that are built for the six cylinder 40 horsepower chassis. By way of a somewhat more racy offering, there is also the Torpedo Flyer, so-called,

glass wind shield, speedometer, shock absorbers, head, side and tail lamps, horn, tire irons and Prest-O-Lite gas tank. In addition to the three closed front models mentioned, the same chassis is sold with touring bodies for either five or seven passengers, "Flyabout" and "Tourabout," limousine and landaulet bodies. The five passenger touring car, "Flyabout" and "Tourabout," are listed at \$3,750 now, instead of at \$3,500. The prices of the other types are, respectively: Seven passenger touring car, \$3,850; closed front touring and "Flyabout," \$3,900; closed front seven passenger touring car, \$4,000, and limousine and landaulet \$5,000 and \$5,100.

The "6-70" model chassis, which is the heavier, chain driven pattern of chassis, is produced, practically, in the same form as heretofore, with seven passenger touring, limousine and landaulet, "Flyabout" and single and double rumble runabout bodies. This machine has a more elaborate equipment even than the one previously described, its allotment of accessories includ-

## FIRE HORSES TO BE DISPLACED

**New York City Makes First Serious Move in that Direction—Big Orders Placed for Automobile Apparatus.**

Although only a couple of months ago Edward F. Croker, chief of the New York fire department, classified the rumor regarding the instalment of additional motor equipment as "mere talk," this talk rather suddenly has become an established fact. For not only has the department let contracts for the building of five automobile hose-wagons and one combination motor-propelled and pumping engine in combination with a hose wagon, as well as for two 1½ ton trucks, and has asked for bids on an aerial hook and ladder truck of self-propelling design, but there is every probability that the horse as a tractor of fire engines soon will be a thing of the past in New York City.

Commissioner Waldo, when seen in his office at 157 East 67th street, by a Motor World man, spoke in an optimistic tone about the efficiency of the modern motor fire truck and its economical operation. He let it be understood that in all probability the equines now utilized in the departmental work will be permitted gradually to "die out," i. e., when replacement of engines becomes necessary hereafter such replacement will be accomplished by suitable installation of motor-propelled engines. Ultimately—in a few years at the most—there will be nothing but motor-driven fire engines in Greater New York.

The specifications inviting bids for the machines which have been ordered were exhaustive and carried down to the minutest details. Among other things they stated: "No bid will be considered from any contractor who has not manufactured and had in operation at least 25 chassis with the type of engine transmission, ignition and lubricating systems, which it is proposed to furnish under the following specifications."

This clause narrowed possible bidders down to a small number, and of these the Webb Motor Fire Apparatus Co., of St. Louis, Mo., carried off the biggest order, one calling for five automobile hose wagons and one smaller combination wagon. The accepted price for these six vehicles was \$5,350 each for the hose wagons, and \$4,350 for the smaller combination truck, or a total of \$31,100. The Knox Automobile Co., of Springfield, Mass., received the contract for the gasoline propelled pumping engine at \$8,500, and for the two 1½ ton trucks costing \$6,205. No other bids were considered, although the Alden-Sampson Co., of Pittsfield, Mass., the W. Walter Mfg. Co., of New York City, and two smaller concerns submitted tentative terms.

No bids whatever were received for the

aerial hook and ladder truck, which has been made the subject of very exacting specifications. Not only is the material, the springs, frame, size of wheels and tires, ignition, carburation and lubrication named in detail, but the field of possible bidders is restricted by the requirements as to the propelling mechanism, the guarantee of the manufacturer to repair the truck free of charge within two years of purchase time (excepting in the case of an accident not due to the mechanism of the car), and the details of the ladder equipment. Most interesting of these special requirements is that referring to the propelling mechanism. It is distinctly stated that the driving power is to be electricity, supplied by a power-driven generator; the power to be applied to each wheel through electric motors, the motors being enclosed in and geared to the wheels. These motors are to be of three horsepower each, having a momentary overload of 200 per cent., the mechanical losses through the gearing not to exceed 3 per cent. These motors must be of standard design and be produced by a responsible manufacturer, so that spare and repair parts may be obtained at any time, all parts being strictly interchangeable. The steering is to be through all four wheels; front wheels to be operated by large hand wheel, with worm and sector on axle; rear wheels to be operated by similar gearing, but wheel removable from shaft, and shaft removable from gear and axle.

The generator to be used in driving these trucks must be specially designed for this class of work. The maximum rise of temperature in any part of the generator after an hour's run, under the average operating conditions, shall not exceed 40 degrees C. It is to have an overload of 200 per cent. for two minutes. Its frame is to be of cast steel with heavy aluminum bearing houses. Bearings shall be of plastic bronze, easily removable, dust-proof and lubricated by means of oil reservoirs and rings. The armature shaft shall be turned from one piece of 35 point of carbon steel, the flange for coupling with the engine being integral therewith. The winding and insulated parts of the generator shall be subjected to a high potential test of 500 volts alternating current for one minute between windings and ground.

There are but three or four companies in America making a specialty of such propelling mechanisms as specified for these aerial ladders, and as none of them reached out for the order the fire department again has published the specifications inviting bids, and it is expected that either the Couple Gear Freight Wheel Co., of Grand Rapids, Mich., or the Commercial Truck Co. of America, Philadelphia, Pa., will submit at least tentative figures. In the meantime the building of the hose wagons and small trucks has started, and they shortly will be installed in the most important engine districts.

## FAVORS MOTOR FIRE APPARATUS

**Massachusetts Fire Chief Enthuses Over Its Efficiency and Economy—Springfield has Happy Experience.**

"We have thoroughly tested motor apparatus for our fire department and have found it more feasible, faster, less expensive and easier to handle than horses. We have put \$20,000 into our present equipment. We have \$40,000 more to spend, and our present outfit will be more than doubled shortly. In five years I predict that there will be no horse-drawn apparatus on the Springfield department."

This striking tribute to the efficiency of the motor vehicle in the special and exacting work of fire-fighting apparatus was paid by Chief W. H. Daggett, of the Springfield (Mass.) department in the course of a recent interview. The statement followed the announcement that Springfield's present equipment of five automobile pieces is about to be augmented by the installation of an electrically driven hook and ladder truck having an 85-foot aerial ladder while another truck of the same kind is to be put into service later, and, within a year's time, four additional motor vehicles of various descriptions.

During the two and one-half years that automobile apparatus has been in use in Springfield, the annual fire loss has decreased by a striking amount, despite an increase in the number of fires. In the two periods from December to December 1906-7 and 1907-8, the first year the self-propelled equipment was in use and the year previous, for example, the net saving to the city was more than 80 per cent. on the total annual fire loss, or from \$535,549.74 in 1906-7 to \$88,690.38 the following year. At the same time the number of fires increased from 498 in 1907 to 530 in 1908.

"Three or four years ago, one of the fire commissioners began to think favorably of the plan to try an automobile in the department and secured the money for its purchase," said Chief Daggett in explaining the success of the new form of equipment. "Auxiliary apparatus was first installed. The scheme worked, the citizens began to see that the efficiency of the fire fighting work was being increased, and gradually money was appropriated to purchase trucks, and later to build new buildings intended only for autos.

"In less than three years, therefore, we have acquired five pieces of apparatus, namely, a chief's car, an assistant chief's car (both equipped with searchlight, extinguishers and axes), two auxiliary squad cars carrying nine men and two chemical combination wagons.

"At first we had intended to keep ac-

## THE MOTOR WORLD

### PULLMAN'S CLOSED-FRONT CAR

Wherein Its Body Differs from Other Four-Door Models—Mechanical Features in Common with Pullman Line.

curate track of the cost of each machine for comparison with the cost of horses, but we soon found that this was impossible with the machines of the chief and the assistant chief. As soon as the experiment was known to be well under way, visitors from all over flocked in to see how the scheme was working and the two machines have been in constant use for showing these people around. Their expense therefore cannot be said to be a normal one.

"But with the hose wagon it has been possible to do this. Previous to the use of automobiles, the expense of a pair of horses for their feed, bedding, horse-shoeing, veterinary care and other items, had been about \$600 a year.

"The figures for the fiscal year just passed, as well as for the year before, show that the chemical wagon and each auxiliary wagon have cost about \$18 a year apiece.

"This expense has been for gasoline, fixtures and repairs, and has excluded the cost of tires. This latter item, which motorists might expect would be a large one, we do not expect to find so. In the first place the fire automobile does not make the mileage that an ordinary machine makes. We have found that in the average year each piece of apparatus goes to about 150 fires, and that an annual mileage of 750 would be large. So there is not much wear and tear, and I am sure that we can make a contract for tires that will come to a very low figure.

"Now, that this apparatus has proved a success, we are going ahead for more. So far we have spent about \$20,000, and as yet have not touched an appropriation of \$40,000 for additional automobile wagons.

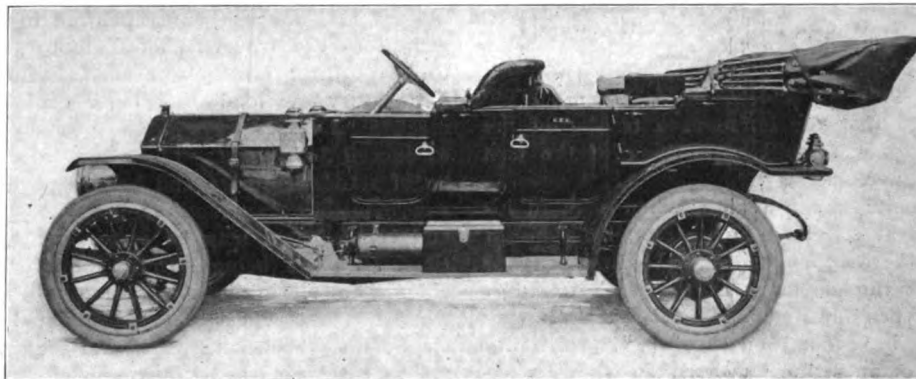
"In a week's time, however, we expect to get an 85-foot aerial ladder, which is guaranteed to make 20 miles an hour. It will be made along special lines, however, that have never before been utilized in fire departments.

"Electricity will be the propelling force, and in each wheel there will be a motor of three horsepower, and capable of 200 per cent. overload. The truck will weigh ten tons, and we do not have to accept it unless it makes 20 miles an hour, which is a far higher speed than the horses on a truck of this sort attain.

"As soon as this apparatus proves a success our present 85-foot truck will immediately be converted so as to run by electricity. And the truck propelled in this way will have an additional advantage in the fact that both sets of wheels turn, so that the whole affair can be turned around in its own space.

"Already one of our new fire houses, built without any provision for horses, is well under way, and a second has been started. In the new headquarters station will be housed our great water tower, which will be towed by an automobile. Already, in fact, three of our machines have been equipped with towing apparatus."

As the number of closed front bodies multiplies in the market it becomes apparent that despite the simplicity of the idea involved there is room for the utmost variety in its execution. No two respective makes of closed front touring bodies are exactly alike, even though they may be similar to a marked degree, any more than two makes of open front touring body are exactly alike, despite striking similarity.



THE PULLMAN IDEA OF CLOSED-FRONT CARS

In the long series of new-style bodies which have been brought out within the past few months, for example, none has been exactly like the new Pullman creation that has been designed for the model "M" chassis of the Pullman Motor Car Co., York, Pa., whose productions have earned the right to be reckoned with.

Although the new Pullman line was announced several weeks ago, it was then stated that a new form was being developed for the largest model of the trio; and this is shown by the accompanying illustration. Its claims for distinctiveness rest upon the fact that the front doors and the dash, which are of the same height as the bonnet, are lower than the rail between the front and rear seats, while the hand rail at the end of the rear seat is still higher. The result is a sort of char-a-banc effect, very suitable for so large a car as the Pullman "M."

The car in question is of 50 horsepower, driven by a four cylinder motor of  $5\frac{1}{4}$  by 6 inches cylinder dimensions. It has four-speed, selective change gear, shaft drive, 127 inch wheel base and 36 by  $4\frac{1}{2}$  inch tires. The front axle is drop forged of I-beam section; the rear one is of the Timken full floating pattern.

Very solidly built throughout, the car is of characteristic Pullman construction, save in point of the engine cylinders, which are separately cast, as in the model "K," and in the number of speeds secured by the

gearset. It has double ignition, with Bosch magneto, and is equipped with oil and gas lamps, generator, top and tools.

#### Telling the Story of the Stearns.

"White line radiators" are pretty well known, but in order that the details of the car behind the white line radiator should not be overlooked, the F. B. Stearns Co., Cleveland, O., has just brought out a new catalog in which they are very fully explained and picturesquely illustrated. Rather a good idea in connection with the embellishment of the crisply assertive text matter is the use of panel pictures which show different portions of the car and also portions of the shops in which they are completed. The result is that the

reader is given a good impression both of the method of design and the manner of construction. The models described, of course, are the very latest series of what its makers are pleased to term "The ultimate car," which already have been dealt with in these columns.

#### What Sometimes Affects Braking Force.

In cars that have been designed without due reference to the layout of the braking system it sometimes happens that the surging of the chassis over the axles has a very marked tendency to alter the force with which the brake shoes are applied. The difficulty arises when the radius of motion of the brake rods is shorter than that of the radius members that regulate the position of the back axle. In such cases, the obvious thing to do is to adjust the brake linkage when the springs are loaded down to about the average position that they occupy when the car is on the road.

#### Overhauling a Water-Jacketed Carburetter.

Two important points must be considered in connection with the overhauling of a carburetter that is equipped with a water-jacketed mixing chamber. One is to see that the piping is properly connected in order to secure a natural flow of water through the jacket. The other is to make sure that the connections are perfectly clear and free from deposits and encrustations.

**SELDEN ANNOUNCES NEW STYLES**

**Closed Fronts in Four Models Including  
Three Passenger Roadster—Longer  
Wheel Bases and Larger Tires.**

Five distinct models, not including runabout variations, will be produced by the Selden Motor Vehicle Co., Rochester N. Y., during the coming year, and they will be calculated to afford the purchaser all the option a reasonable motorist possibly could require when selecting a car of 40 horsepower, or 36.1 horsepower, as the Selden is rated. In making this announcement it is disclosed that the variety is not secured

roadster forms. The accompanying illustration shows the four passenger style, known as model "44." The distinctive elements of the class, which are shared by the four passenger touring and roadster models, "46" and "40-R," as they are catalogued, and, to some extent, by model "45," a closed front touring car seating five passengers, readily are apparent.

Following the spirit of the torpedo the sides are made absolutely flush, the door handles being placed inside and the exterior left free of mouldings, while the hood is flared slightly toward the dash, the latter being of the scuttle type, and tapering out at the sides to a smooth curve where it joints the surfaces of the sides. The mud guards also are distinctive, being drawn

the shape of a readily removable sod pan which is held in place by means of spring fasteners. With one exception, all new models have two universal joints in the propeller shaft, instead of one, such as was used before in connection with the enclosing torque tube construction. That arrangement, however, is retained in the case of the five passenger touring car "40-T," because of its suitability where the wheel base is short.

All models are to be sold with a liberal equipment of fittings and accessories, the allotment being practically uniform with all models. It includes top, curtains, slip covers, wind shield, headlights and Prest-O-Lite gas tank, side and tail oil lamps, tire irons, horn and the usual outfit of tools.

**Opening Bermuda to Modern Methods.**

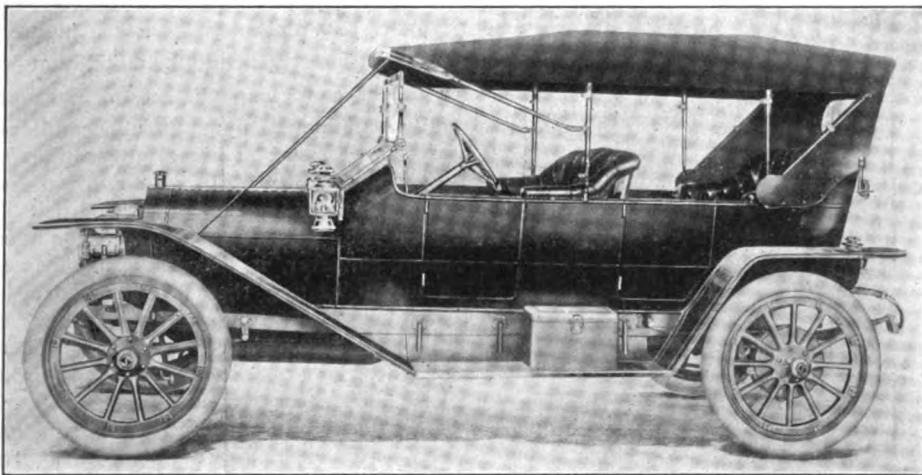
Replacing the lighterage and packet-boat methods of freight transportation that have obtained hitherto, an automobile freight line is being formed in Bermuda, according to consular advices. The undertaking, which is being organized by leading business men on the island, will be capitalized for \$100,000, and a bill for its incorporation will be presented at the next session of the legislature. It is planned to get into operating condition by the first of January next. How significant is the movement will be appreciated from the statement that at present the local transportation methods are of the most antiquated order, the final installation of the proposed 'bus line, indeed, awaiting an amendment to the present law which forbids the use of motor vehicles of any sort on the island.

**Economy of the Motor Fire Engine.**

According to the report of the fire chief of Alliance, a saving of \$349.27 was effected by the use of a motor-propelled engine in that little Ohio city during a period of 11 months, as compared with the team of horses previously employed. The expense for the motor fire engine for this period was \$78.41, including all supplies and all repairs to tires. As the effectiveness of the motor fire engine was at least twice that of a single team engine, the citizens of Alliance are rather inclined to pat themselves on the back for their wisdom in making the investment.

**Furniture Mover Makes a Record.**

What probably is a record for long-distance furniture moving by motor truck was accomplished last week when a Frayer-Miller truck loaded with three tons of household goods, valued at over \$5,000, ran from Boston, Mass., to Bristol, Me., in three days, making about ten miles an hour average speed over the rough country roads. The truck is one of several owned by Warner & Co., furniture movers, Boston.



THE NEW SELDEN FOUR PASSENGER TORPEDO

merely by mounting different bodies on a single size and style of chassis, as sometimes is done, but that two distinct styles of chassis will be used. Both chassis, however, will be equipped with the same type of motor, and in respect to most essential features will be similar.

In producing the new cars but few changes have been made, the motor and change gear being of the same style that at present is in use. The dimensions of the engine are  $4\frac{3}{4}$  by 5 inches, bore and stroke. The clutch is of the plain cone type, and the change gear is of the selective order, affording three forward speeds. The two new chassis, which are used for the closed front bodies, are made with drop frame and 125 inch wheel base; the straight line frame that was employed last year still being used on the remaining models. Tire sizes have been increased, 36 by 4 by 4 being the standard for all except the seven passenger touring model, which has  $4\frac{1}{2}$  inch equipment on the rear wheels. The previous models, it may be mentioned, had 34 by  $3\frac{1}{2}$  by 4 inch tires, save for the seven passenger model.

The most striking alteration, naturally, is in the appearance of the closed front models, which are produced in six and four passenger touring and three passenger

practically in straight lines with short radius curves in the angles. The four enclosed models have semi-elliptic front springs, 38 by 2 inches, and three-quarter elliptic rear members, 51 by  $2\frac{1}{2}$  inches in size, the latter being an innovation in this line.

The standard touring models, in five and seven passenger styles, are designated as "40-T" and "40-S," respectively. They follow pretty closely the form of the cars that have been produced during the current year, but partake of such general refinements as have been introduced into the entire line.

Such changes as have not been mentioned already include the elevation of the oil pump and timer to a point higher up between the cylinders than that which it formerly occupied, it thereby being rendered more readily accessible; the placing of the oil filler for the crank case in a more convenient position, a similar improvement in the relation of the oil level gauge with respect to surrounding parts, and the use of an endless fan belt, which is so arranged that it can be replaced without dismantling the pump shaft.

The three entirely new models, "44," "46" and "40-R," as well as model "45," are provided with a new and desirable feature in

## PITS MOTOR AGAINST THE HORSE

**Maxwell Inaugurates Unique Six Day Test**  
—Guarantees Two Cents a Passenger  
Mile to Purchasers.

Pitting the small runabout directly against the horse and buggy, the Maxwell-Briscoe Motor Co., Tarrytown, N. Y., has instituted what may be termed a living demonstration or parallel. For the purpose a horse and buggy and a Maxwell runabout are making a six days' competitive cost trial in New York, each being driven five or six hours a day, the distances and items of incidental expenditure carefully being noted and checked by impartial observers appointed by the contest board of the American Automobile Association. The practical side of the program is an offer to sell to any resident of Greater New York and vicinity a Maxwell model "Q-11" runabout with a positive guarantee to return the purchase price, less two cents per passenger mile for each mile traveled, if, at the end of 60 days, it is found to have cost more than that to operate.

The tests for Monday and Tuesday employed routes on the streets and boulevards of Manhattan and Brooklyn, Long Island City and Jamaica, respectively. Wednesday the scene was transferred to Newark and Jersey City and today (Thursday) Staten Island is being invaded.

During the first two days of the trial, the respective costs worked out at one and one-third and three cents per vehicle mile for the runabout and the horse and buggy, respectively, using round numbers, while the costs per passenger mile were a fraction over six-tenths of a cent for the car and nearly two cents for the horse and buggy. In figuring the cost of the mileage 17 cents a gallon is allowed for gasoline, 65 cents a gallon for oil, 25 cents per peck for oats and one cent per pound for hay. The record in detail is as follows:

### Automobile.

	Monday	Tuesday	Totals
Mileage .....	67.4	76.1	143.5
Gasolene .....	\$0.85	\$0.92	\$1.77
Oil .....	.15	.12	.27
Total costs.....	1.00	\$1.04	\$2.04
Comparative cost			
per mile.....	\$0.014	\$0.013	\$0.0135
Cost per passen-			
ger mile.....	0.007	0.006	0.0065

### Horse and Buggy.

Mileage .....	28.8	35.5	64.3
Oats .....	\$0.75	\$0.75	\$1.50
Hay .....	.20	.20	.40
Totals .....	\$0.95	\$0.95	\$1.90
Comparative cost			
per mile.....	\$0.032	\$0.026	\$0.029
Cost per passen-			
ger mile.....	0.016	0.013	0.0195

The two-cents-a-mile sales guarantee, which is in some respects the more re-

markable feature of the campaign follows:

"We will sell a 1911 model "Q" Maxwell runabout (4 cylinder, 22 horsepower, sliding gear transmission) made for attachable rear seat, and we will give you a positive guarantee that it will not cost you to operate it more than two cents per passenger mile. This guarantee will provide for each car we sell under this offer, that it shall be equipped with an odometer or speedometer, and at the end of 60 days, if the car has cost to operate over two cents per passenger mile, we will return to you, at your request, the money you paid us for the car, less two cents per mile for distance traveled, minimum of \$1.00 per day charged for its use."

### Radiator Without Seams or Joints.

By the acquisition of the sole manufacturing rights for America under the do-



mestic and foreign patents of the Societe des Radiateurs et Refrigerateurs, of St. Ouen, France, the McCord Manufacturing Co., Detroit, Mich., has been enabled to produce a type of radiator that is made in the form of a solid copper block without joints or seams of any sort. The special processes employed result in the formation of a true honeycomb structure with hexagonal air tubes, as the accompanying illustration shows, increasing the radiating efficiency of the apparatus and at the same time precluding all possibility of the leaks that arise from poorly made joints and seams or those which have been strained in service. While the exact details of the process are not revealed, it is indicated that it is largely electrolytic in its nature. The construction is known as "le Sans Soudure" in France, where it has been adopted by a number of well-known makers, and though the McCord company has not definitely decided on the name under which the American product will be marketed the characterization "solderless" seems to suit it very aptly. At the present time an engineer from the French works is at the factory in Detroit, installing production machinery, while sample radiators are being made for a number of automobile manufacturers. The elimination of from 6,000 to 10,000 soldered joints effected by the new method is claimed to be revolutionary in its nature.

## MAY BE DUE TO POROUS PISTONS

**How Poor Castings Sometimes May Cause Losses of Power—Replacement the Most Certain Remedy.**

It is likely that if some motors, particularly those of the cheaper grades, that occasionally exhibit strange and almost inexplicable losses of compression, were to be fitted with one or more new pistons the difficulty immediately would disappear. Peculiar as the assertion may appear it is based on the well-substantiated fact that occasionally an engine may be sent out with one or more pistons the metal of which is sufficiently porous to cause trouble. With a well tested engine, of course, there is little likelihood that such a defect can escape detection, since carefully conducted dynamometer and compression tests soon reveal any serious loss of compression. With engines of the sort that are turned out in great quantities and given little more than a tryout for adjustment, however, it sometimes happens that a piston casting that is either porous or possesses one or more minute blow-holes may get into service unnoticed. Several instances of the sort have come to light.

In such a case, of course, the effect will be noticed only when the motor is thoroughly heated and generally only when it is working slowly under heavy load, as for example, when climbing a long hill. At such times the piston travel is so slow that the slight leakage through the pores in the piston may have a noticeable effect on the compression, the heated condition of the piston head serving to enlarge the openings to more than their normal area. With the same temperature in the metal, but with the engine running at high speed, the same rate of leakage, naturally, would have less total effect in reducing compression.

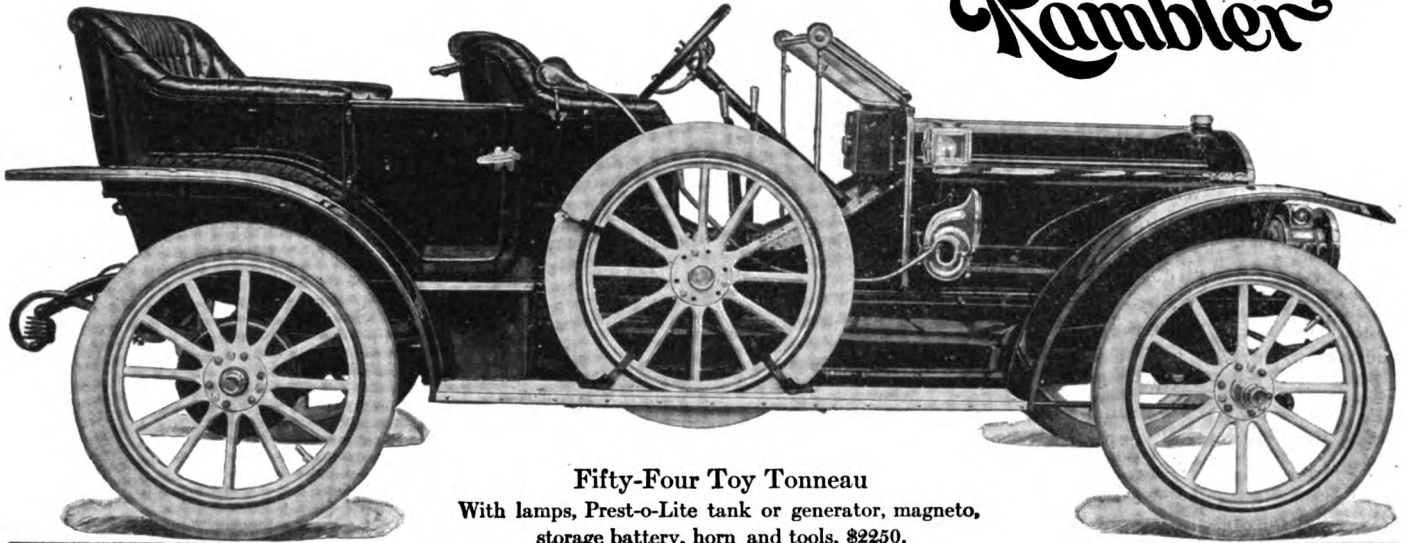
Such a defect, of course, is purely a constructional one and is about as difficult to remedy as it is to locate. A piston that is found to be defective in this way should be replaced with a new one. At the same time it is possible to fuse the upper surface and so heal the little pores by the well-directed use of the autogenous blowpipe. As it is extremely difficult to develop the high heat necessary for such an operation without injuring the bearing surface at the sides or cracking the metal, it had better not be undertaken save by an expert.

### The Cleaning of Stained Greys.

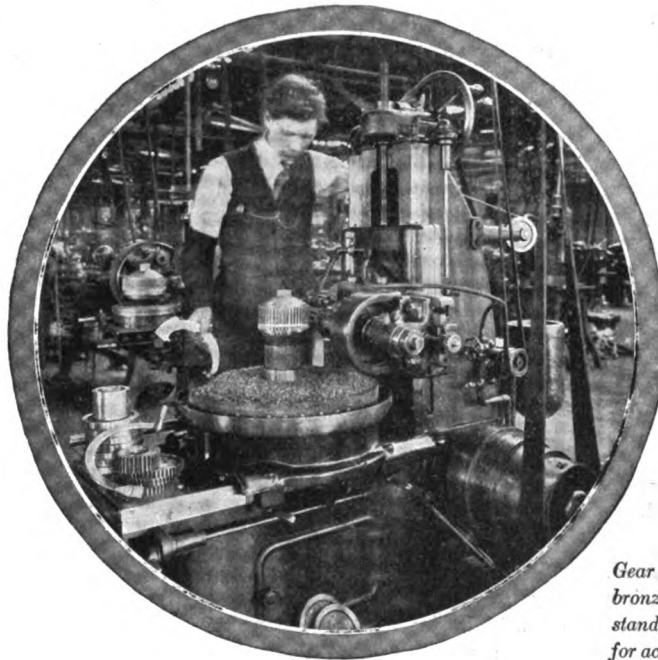
"Battle-ship" grey and other dull and unvarnished body surfaces that have become stained may be cleaned by means of gasoline or, that failing, with kerosene oil. If the oil is used, however, it will be found necessary to go over the entire body in order to avoid visible stains.



# Rambler



**Fifty-Four Toy Tonneau**  
With lamps, Prest-o-Lite tank or generator, magneto,  
storage battery, horn and tools, \$2250.



*Gear shaper cutting Rambler  
bronze gear. The workman  
stands ready to gauge the gear  
for accuracy when completed.*

Silence, smooth running qualities and perfect balance have been attained through the careful grinding of Rambler parts and their accurate fitting. Reciprocating parts, such as pistons, connecting rods, crank shafts and fly wheels are weighed and balanced to eliminate vibration. These points alone illustrate the superiority of the Rambler engine.

## **The Thomas B. Jeffery Company**

**Main Office and Factory, Kenosha, Wisconsin**

**Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco**

### Chauffeurs' Scheme that Miscarried.

Despite the ingenuity which some chauffeurs, or would-be chauffeurs, develop in their attempts to get around the provisions of the Callan bill, these attempts rarely end successfully. Attorney-General O'Malley a few days ago was advised that a number of chauffeurs who had failed to pass the examination as professional chauffeurs were trying to circumvent the provisions of the Callan law, by buying a dollar's worth of interest in the automobile they desire to drive, and then register themselves as "part owners," thereby dodging the chauffeurs' license requirement. As they, however, keep on getting a salary for "chauffeuring," the scheme miscarried, for the attorney-general very naturally ruled that all persons driving a car for wages or for hire must have chauffeurs' licenses.

### One City Official Ends Joy Riding.

Comptroller Prendergast, of New York City has decided that there is entirely too much joy-riding being done on city-owned automobiles, and that the up-keep expenses of the cars are out of all comparison to the real service which they accomplish for the good of the city. Therefore the automobiles belonging to the finance department will be sold, and when necessity demands cars will be rented under contract, for which service the comptroller expects to pay about \$450 per month. As the four cars at present used by the department cost \$15,000 per year, chiefly for "repairs," Mr. Prendergast figures on a saving to the city of about \$9,000 per year.

### To Teach Motoring in High School.

Due to conditions made possible by John Hays Hammond, the mining engineer, who has a summer home nearby, motoring is to be given a place in the curriculum of the Gloucester (Mass.) high school. The professional chauffeurs are said to have made strenuous objections to their vocation being made as common property as the other indispensable branches, but some of the smaller colleges have tackled automobiling in a dilettante way for a year or two, but it remained for the Gloucester folk to start that business in the high school.

### Automobile Funeral "Scandalizes" Paris.

According to the cables, Paris has just had its first complete automobile funeral, although the city has long boasted several motor hearses. The gasoline obsequies moved at such a rate as to scandalize cynical observers. "As if the dead did not vanish quickly enough!" says one chronicler.

### One Market the Horse Holds Safe.

Hippophagic butchers, is the designation applied to the increasing class of meat dealers in France who handle horseflesh, the consumption of which at present is

said to exceed 200,000 animals a year in Paris. That city has about 600 shops where little other meat is sold, and they are not confined to the poorer sections of the city, either. The average price of the horse meat is about 12 cents a pound, but the low cost is not the only cause of its popularity. It would cost much less but for the tax designed to encourage breeding in France. These facts make evident that Dobbin will long continue in the market, no matter how rapidly motor trucks may multiply.

### When Motor Car Meets Coal Truck.

E. Willis Welch, of Riverhead, L. I., probably banked too much on the strength of his touring car, or underestimated the stability of a loaded coal truck, when he tried to bump the latter out of his path. For the net result of the attempt was a thoroughly smashed car and a broken arm belonging to its driver. The coal combination of man, team and truck was not damaged in the least. In order to obtain at least a financial balm for his hurt feelings he has sued the company for \$300 damages. The automobile crashed from the rear into the coal cart, which was being driven along the road at a pace that was too slow for the impatient Mr. Welch.

### Magistrate Makes a Queer Threat.

Although the officially appointed taxicab inspectors of New York City repeatedly have admitted that there is no law in existence which can compel "taxicabs" to carry taximeter instruments on their cabs, Magistrate Herman, sitting in the Harlem police court, threatened a driver with a \$50 fine when the latter proposed to take off the taximeter and drive without one, charging \$1 per hour under the New York City hack license law. The magistrate apparently had not heard of the suit pending between the Universal Taxicab Co. and the city of New York, in which the Supreme Court decided the point involved.

### Mail Collecting Not Minus Excitement.

It is to be feared the collection of mail by automobiles would not prove a success, if the result approached the record made last Monday by Charles Black, a chauffeur, who had a busy day in Washington. He wrecked two automobiles, smashed a carriage, probably fatally injured a mail collector, bruised another person and sent two horses to the hospital.

### Abbott Heads Duluth's New Club.

Duluth (Minn.) automobilists met last week in the Zenith City and formed the Duluth Automobile Club with nearly a hundred charter members. Howard T. Abbott was elected president, while the other offices were divided as follows: Charles H. Thornton, vice-president; Casius Bagley, treasurer, and C. F. McCarthy, secretary.

### Capetown to Cairo by Motor Car.

The automobile journey which probably will rank next to the not-to-be-forgotten New York to Paris "race," in the annals of motordom at least, will be started in the early part of November, when, it now is announced, B. F. J. Bentley, an English explorer and ardent motorist, and Captain R. N. Kelsey, a veteran of the Boer war, will undertake the trip from Capetown, South Africa, to Cairo, Egypt, a distance of 6,000 miles, in an almost due north direction. A journalist and a bioscope operator will be the other members of the party of four which will try to make this trip. The route as laid out will be as follows: Capetown, Bloemfontein, Victoria Falls, Livingstonia, Bismarckburgh, Lake Tanganyika, Visumbi, Kodok, Khartoum, Wadi Halfa, Cairo. The greatest trouble probably will be the fuel supply in Equatorial Africa, as north of the Zambesi and south of Lake Tanganyika no motor vehicle yet has penetrated. The trip is scheduled to take about four months.

### Local Communities Arrange Reciprocity.

While the inhabitants of New York City may not enter Hoboken or Jersey City via the automobile route without paying a license fee, the authorities of Cincinnati, Covington and Newport, although located in different states, have reached an agreement under which the three cities will be practically one big city, as far as traffic regulations, etc., are concerned. Ohio owners of automobiles and other vehicles will be permitted to travel in the streets of the Kentucky towns, and vice versa, without the red tape of registration, licenses, etc., heretofore exacted.

### Cuba's Move to Encourage Touring.

The Treasury Department of the republic of Cuba has given notice that henceforth automobiles taken to the island by tourists will be admitted free of all duties and customs charges. It will be necessary, however, to deposit a sum equal to the duty, the deposit being returned to the owner when leaving the island. The only condition attached to the privilege is that the owner shall not use his machine for financial gain while on the island.

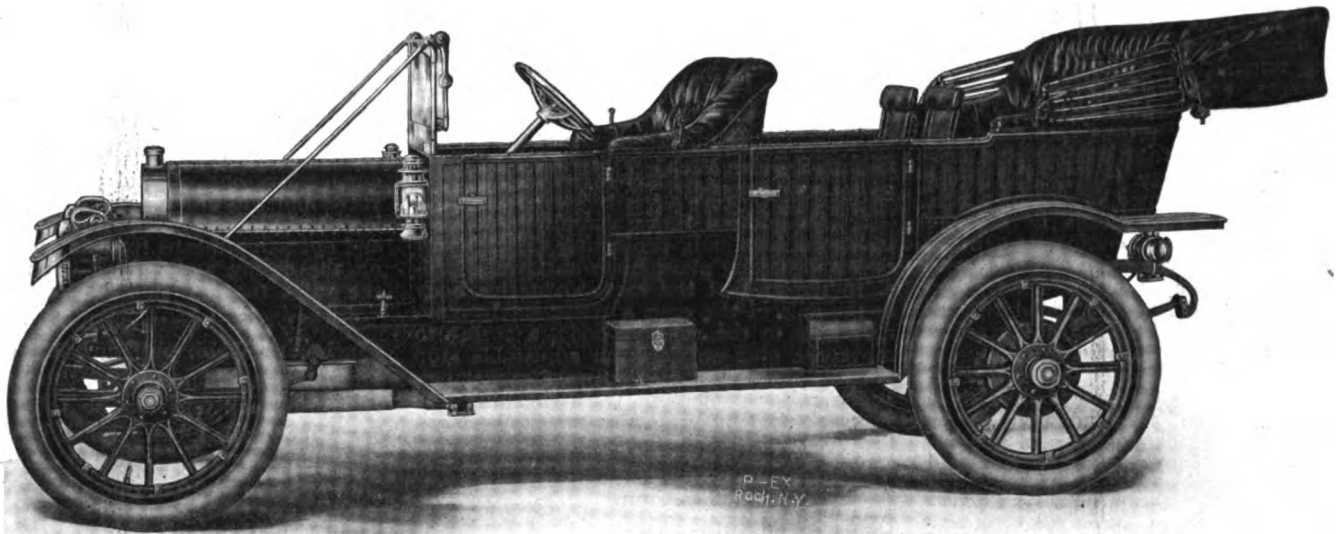
### To Auction Automobile for Good Roads.

To assist a good roads movement which is in progress the Studebaker Bros.' Oregon branch has donated an E-M-F car to the fund which is being raised in Portland, Oregon. The automobile will be sold at auction and the proceeds turned over to the Crater Lake Highway Commission.

### Athol Automobilists Get Together.

The Athol Automobile Association has been organized at Athol, Mass., with nineteen charter members. Joseph Wilcox is president; P. B. Swift, vice-president; A. N. Ellis, secretary and treasurer.

# A Car Embodying Many Advanced and Original Features in Engineering Design



Price, Completely Equipped, Top of Special Imported Mohair, Wind Shield, 5 Lamps, Prest-O-Lite Tank, Tire Irons, 2 Extra Demountable Rims, Speedometer, Bosch Magneto, Shock Absorbers, Complete Set of Tools and Tire Kit, Robe and Foot Rails, \$3,500.

Although we have been building motor cars for the best part of three years, this is the initial trade announcement of the Cunningham car.

Most of this time has been consumed in developing the kind of a car that we would feel justified in trade-marking with the name "Cunningham"—a name that has stood for the best and highest quality in the vehicle world for several generations. And, too, this car is **manufactured** by us, in our own plant, which is completely and thoroughly equipped in every department with the most modern automobile machinery. We have taken ample time and have spared neither pains nor expense in designing and constructing this car to meet every requirement of the most discriminating buyer.

## Cunningham

In style, material, workmanship and finish it will be found fully up to the standard of the world's best cars. Mechanically it possesses every good feature of the world's best and in many respects it contains new and advanced engineering ideas impossible to elaborate on in this limited space.

Reliability and accessibility have been aimed at above any other considerations. The model car, from which the above photograph was made, has been driven since it was put on the road a distance equal to three trips across this continent, over every kind of road, up and down mountains, hub deep through miles of sand, and all this, too, without a single breakage or replacement of any kind whatsoever.

### SPECIFICATIONS

**BODY**—Aluminum.

**SEATING CAPACITY**—Seven persons.

**COLORS**—Standard color black and olive green, vertical French striping, as per cut. Other colors optional without extra charge, extra time only being required to meet the special specifications.

**POWER PLANT**—Unit construction, overhung transmission.

**LONG STROKE LARGE VALVE MOTOR**—40 H. P., 4 cylinders, 4¼-in. bore, 5¾-in. stroke, valves in the head in cages (see cuts) and completely housed by easily removable aluminum caps. The valves are of large diameter. Cylinders cast in pairs. Crank shaft offset. Water cooled from gear driven centrifugal pump.

**TRANSMISSION**—Selective sliding gears, three speeds forward and one reverse. All gears and shafts of chrome nickel steel, heat treated and bearings imported annular ball.

**WHEEL BASE**—124 in.

**CLUTCH**—Leather faced cone with cork inserts, carried on roller bearings.

**GEARING**—3¼ to 1 or 3 to 1 as wanted, according to locality where the car is to be used most.

**DRIVE**—Propeller shaft with double universal joints to bevel gears in rear axle.

**IGNITION**—Bosch dual system. One set of spark plugs.

**GASOLINE CAPACITY**—20 gallons, of which 2 gallons is held in reserve for emergency.

**LUBRICATION**—Circulating splash system. Main bearings, front gears and splash compartments supplied to gear circulating pump.

**STEERING COLUMN**—Irreversible nut type, adjustable for wear, 18-in. mahogany steering wheel with aluminum spider.

**FRAME**—Special pressed steel and heat treated, raised over rear axle.

**SPRINGS**—Front, semi elliptic, length 40 in. Rear, ¼ elliptic and scroll 50 in. long.

**TREAD**—56 inches.

**TIRES**—36 x 4½ in. front and rear.

**RIMS**—Universal, quick detachable, demountable.

## JAMES CUNNINGHAM, SON & COMPANY

Rochester, N. Y., U. S. A.

Established and Reputable Dealers Write for Open Territory

## RECENT PATENTS.

965,847. Vehicle Wheel Rim. John M. Alderfer, Sharon Center, Ohio. Filed Dec. 3, 1909. Serial No. 531,263.

1. A vehicle wheel comprising an annular body portion the outer face of which constitutes a seat for a tire and having along one edge thereof an outwardly-extending flange constituting an abutment and along the opposite edge an inwardly-extending flange provided with a laterally-extending annularly-fashioned face constituting a seat, said latter flange provided with a transversely-extending notch, an annular tire-holding means mounted on said rim seat and abutting against said outwardly-extending flange having the inner lateral face thereof formed to engage a tire, a second tire-retaining means having the inner lateral face thereof conforming to the first-mentioned tire-retaining means and adapted to be mounted on said laterally-extending seat, said last-mentioned tire-retaining means provided with a notch registering with the notch in said inwardly-extending flange, an obliquely-severed self-expansible locking ring provided with a groove in its outer face adapted to be sprung over the inner portions of the inwardly-extending flange of said rim and the inner portion of the second mentioned tire-retaining means for holding the latter in co-operating relation with said rim for sustaining a tire, said locking rim provided with a member positioned in the groove thereof and lapping the severed portions of the same arranged to be seated in said registering notches for holding the tire-retaining means against circumferential movement and means for holding the severed ends of said locking ring against unintentional displacement.

965,971. Variable Speed Gearing. Edward D. Westrip, Rockford, Ill. Filed Aug. 20, 1909. Serial No. 513,894.

1. In a variable speed gearing, the combination with rotary driving and driven members, of gear connections between the members, a rotatable plate having a plurality of cam grooves in its opposite side faces, clutches for connecting and disconnecting certain gears and the members, and clutch operating devices having portions engaged in the cam grooves.

966,012. Frictional Power Transmission Apparatus. Walter C. Guildler, Elyria, Ohio, assignor to Arthur L. Garford, Elyria, Ohio. Filed Sept. 18, 1909. Serial No. 518,436.

1. In friction driving mechanism, the combination of a driving shaft, an aligned longitudinally movable shaft having a driving connection with said driving shaft, two friction driving disks fixed to said longitudinally movable shaft having a driving connection with said driving shaft, two friction driving disks fixed to said longitudinally movable shaft, two axially aligned driven shafts whose axis is at right angles

to the axis of the longitudinally movable shaft and is located in the same plane, two driven rolls which are located between the two disks on opposite sides of the axis thereof and are longitudinally movable upon said two shafts respectively and have driving connections therewith, means for moving both of said rolls simultaneously and equally toward or away from the axis of said disks, and means for moving the longitudinally movable shaft in both directions whereby either disk thereon is moved into frictional engagement with the peripheries of both rolls.

966,034. Ignition Timer for Internal Combustion Engines. Francis C. Mason, Grand Rapids, Mich. Filed June 19, 1909. Serial No. 503,253.

1. An ignition timer, comprising a case, insulated terminals projecting through the case and having plane inner surfaces chordal to the axis of the case, a rotative body in the axis of the case, a transversely movable plug in the rotative body, a spring to move the plug outward, an adjustable stop to limit and adjust said outward movement, and a roller projecting from the plug and successively engaging the terminals when the body is rotated.

966,074. Non-Skidding Device. George A. Bell, Norwalk, Conn. Filed Nov. 23, 1909. Serial No. 529,552.

1. A non-skidding device comprising a pair of brackets each having a longitudinally curved body adapted to embrace the sides of a wheel felly, spaced apart arms extending from said body and adapted to lie along and contact with the spokes of a wheel, said arms being provided with hooks, clamping means connecting each pair of brackets, and chains removably connected at their ends to said hooks.

966,146. Testing Device for Spark Plugs. Harvey R. Willard, Chicago, Ill. Filed May 6, 1909. Serial No. 494,365.

1. A testing device of the class described affording a small interior pressure chamber having a view aperture closed by a transparent medium, a gage connected in said pressure chamber, a threaded aperture opening into said chamber to receive the spark plug to be tested, a threaded stem adapted to fit in the spark plug aperture in an engine and a valve for cutting off communication between the pressure chamber and gage.

966,302. Tire Repair Vulcanizing Device. Frederick A. Blanchard, Norfolk Downs, Mass., assignor of one-half to Alfred L. Blanchard, Norfolk Downs, Mass. Filed Sept. 24, 1908. Serial No. 454,586.

1. The combination in a device of the class described, of means adapted to be placed in said tire, said receptacle comprising a flexible outer tube having apertures in its ends, a flexible inner tube contacting with said outer tube along its central portion, and two distinct and independent

closures extending across said apertures and detachably attached to opposite ends, respectively, of said outer tube.

966,345. Exhaust Muffler Cut-Out Valve. Hugh Miller, Attica, N. Y., assignor to Oliver A. Miller, New York, N. Y. Filed July 30, 1907. Serial No. 386,216.

1. The combination with an explosion motor and an exhaust muffler therefor, of a cut-out device located between the motor and the muffler and comprising a puppet valve adapted to open inwardly against the pressure of the exhaust, a casing having a discharge-outlet for the escape of the gases posterior to the valve, said casing being composed of two parts having a separable connection, one of said parts carrying the valve and the other having means connecting it with the exhaust-line of the engine, and operating means for said valve mounted on the casing and having connection with the valve through said discharge outlet.

966,381. Carburetter. Evert P. Brooks, Cincinnati, Ohio, assignor, by direct and mesne assignments, of one-third to Charles A. Gibson and one-third to John Remmers, Jr., Cincinnati, Ohio. Filed July 28, 1909. Serial No. 510,107.

1. A carburetter including a vertical vaporizing tube, and a feed-tube in the vaporizing tube and having a hollow combined feed-head and vaporizing head thereon that has a conical upper end and an outlet opening in the apex thereof, the conical end having a trough extending about the base thereof.

966,391. Chain Gear Casing. Joseph P. Fillingham, Lansing, Mich., assignor to

**THE SHALER**  
**ABSORBS**  
**STITCH-IN-TIME**  
See page 795.

**Perfection**  
**Spring Company**

**SPECIALISTS IN**  
**SPRING**  
**SUSPENSION**  
**HIGH GRADE ONLY**

**Cleveland, Ohio**



**The**  
**Master**  
**Magneto!**

TRUE HIGH TENSION TYPE

**J. S. BRETZ COMPANY**

SOLE IMPORTERS

TIMES BUILDING NEW YORK



## TOO SWIFT, SAYS STOCKHOLDER

**Therefore He Wants Receiver for \$300,000  
Automobile Company Not Yet Doing  
Business—Alleges Mismanagement.**

Although its factory in Wayne, Mich., is not yet completed and, perforce, it has not commenced to produce cars for the market, the appointment of a receiver for the Swift Automobile Co., capitalized at \$300,000, has been applied for. This unusual state of affairs is due to the belief of one of the large stockholders, E. R. Potts, that such mismanagement has characterized the conduct of the young company that the court's assistance is necessary to insure its future.

In his petition Potts represents that the present directors and men in charge of the affairs of the company are incompetent and unfit to carry the project to success. He alleges that the company incurred liabilities to the extent of \$20,000 for building operations and that several judgments for debt already have been secured against it. Potts further avers that there are plenty of assets in sight for the continuance of the company, but he insists on different management. At the present time two complete cars have been turned out by the concern, which occupies temporary quarters in Detroit. The complainant asks the appointment of Albert I. Jacob, of Detroit, as receiver.

The Swift Automobile Co. is of recent organization, but its plant is in course of construction at Wayne, Mich., where 22 acres were purchased for a site. As organized, the Swift company has a capital stock of 300,000 shares, valued at \$1 each. The large stockholders are William A. Montgomery, 30,000 shares; George M. Stellwagen, Wayne, Mich., 25,500 shares; A. McKinnon, Detroit, 10,000 shares, and E. R. Potts, Detroit, 9,000 shares.

### Plans for Rider-Lewis Reorganization.

Creditors of the Rider-Lewis Motor Car Co., of Anderson, Ind., have asked the

court to order the receiver, T. J. Delahunt, to continue the operation of the Rider-Lewis factory until the creditors make further investigation of a plan for a reorganization of the company and also that the receiver be authorized to employ an expert accountant to audit the books. The receiver reported that he had reduced the operating expenses to \$32,000 against \$40,000, and that the factory is now turning out eight automobiles a day. The receiver further reported the receipts of a contract for 200 cars.

### Million Dollar Company Formed in Iowa.

Dave W. Henry, one of the veterans of the industry who helped organize two other automobile manufacturing companies, has "done it again," this time in Mason City, Iowa, where he has assisted in the formation of the Colby Motor Co., of which he has become general manager and a director. The other officers are as follows: W. M. Colby, president; I. W. Kurl, vice-president; G. W. Howland, secretary; A. H. Gale, treasurer. The company, which is capitalized at \$1,000,000, already has broken ground for a factory 450 x 150 feet. Its product will be a five passenger touring car listing at about \$1,600 and built along standard lines.

### Brady Organizes a Parts Company.

James J. Brady, former vice-president and superintendent of the Chalmers Motor Co., Detroit, Mich., and William J. Nagel, former deputy controller of that city, have organized the Brady-Nagel Mfg. Co. and will engage in the production of automobile parts in the Michigan metropolis. Brady is the president of the company, and Nagel the secretary-treasurer. The vice-president and superintendent is George Henderson, formerly assistant superintendent of the Chalmers company.

### Cole Triples Capital; Declares Dividend.

The Cole Motor Car Co., of Indianapolis, has certified to an increase of its capital stock from \$100,000 to \$300,000. Concurrently it has declared a cash dividend of 30 per cent.

## WALL STREET COMES TO RESCUE

**Syndicate Agrees to Loan General Motors  
\$20,000,000—Takes Mortgage and Con-  
trol of Company for Five Years.**

Wall Street now is firmly seated at the steering wheel of the General Motors Co. and for the next five years, at least, its representatives will control and guide its destinies. The \$60,000,000 merger, which set out to dominate the automobile industry and which fell so lamentably short of doing so, has so keenly felt the pinch of financial stringency that to secure the funds necessary for its relief it has passed the control of its affairs from its stockholders and directors to the banking interests which finally have agreed to advance the much-needed money, the deal for which was consummated yesterday.

Even when the Buick Motor Co., the chief link in the General Motors chain, was seeking the loan of \$2,500,000, which it finally arranged to obtain on a 24 per cent. basis, the General Motors Co.—the holding company—was negotiating for the much larger sum, which the Wall Street houses finally have agreed to provide. It has been an open secret that the Buick company was far from being the only department of the General Motors Co. that was hard pressed for ready money, and even when Buick arranged to borrow the \$2,500,000, it was apparent that that sum would merely bridge its difficulties for the moment; the need for more money to assure its future and to prevent a crash was, therefore, imperative.

According to the transaction consummated yesterday, the banking houses chiefly interested, Lee, Higginson & Co., of Boston, and J. W. Seligman & Co., of New York, will accept General Motors five years' 6 per cent. notes to the extent of \$20,000,000 secured by first mortgage, of which \$15,000,000 will be issued and sold and the unsold balance, \$5,000,000, remain in the treasury for future use. In addition to the bankers named, it is stated that Kuhn,



Loeb & Co. and other banking houses are parties to the syndicate that will underwrite the note issue. The cost of the underwriting has not yet become public, but the notes are redeemable at 102½ and interest. The proceeds of the issue will be used to take up the floating indebtedness of both the parent company and the subsidiaries, which, according to Wall Street figures, amounts to \$14,500,000.

The sale of the notes to the bankers marks the passing of control of the company from the shareholders for the next five years, one of the terms of the loan requiring that the bankers be allowed to name a majority of the directors yearly until 1915, during the life of the notes, and also to name six out of the seven members of the finance committee. In this way the interests of the noteholders will be carefully conserved.

The previous loan of \$2,500,000 arranged by the Buick company, will not now be taken up.

The new note issue was preceded by some strong publicity work on the part of both parties to the deal, apparently to prepare the market for what was coming and to let those who incline to invest know what a good thing was in store for them. No later than Tuesday last, the press bureau of Lee, Higginson & Co. issued what in newspaper vernacular is styled a "hand-out," which in adroit language forecasted the deal and painted the beauties of the General Motors Co. and its properties and prospects, and which sought to show why despite such beauties profits had not been reaped. Among other things, this Lee-Higginson "hand-out" said:

"Practically the whole trouble with the General Motors Co. has been in its financing problems. The purchase of the Cadillac Motor Car Co. within the past 18 months, for some \$4,000,000 cash, is a case in point. Such a purchase could undoubtedly have been more wisely effected through sale of General Motors stock. There are now 19 subsidiary companies owned outright or nearly so by the General Motors Co. While their rapid coralling without adequate permanent financing has been embarrassing, the value of the acquisition is shown in striking manner by their past year's earning records.

"About \$3,000,000 profits have resulted from operations of the Cadillac Co. during the year ended Oct. 1, 1910, and there is every prospect of its making \$4,000,000 in the fiscal year which it has just entered. This company is at present turning out automobiles at the rate of 40 a day. Orders for its proposed entire output of 12,000 1911 model cars are already booked.

"During the year ended with the past month the Buick Co. cleared about \$4,000,000 net. Owing to its method of marketing its output, its business is subject to seasonal fluctuations to an extent that the Cadillac company does not experience. Its heaviest deliveries come in March, April

and May. The Oldsmobile company estimates that it could sell twice as many cars this year as its capacity permits; its earnings last year reached about \$700,000.

"These three companies comprise the 'backbone' of the General Motors Co. Aggregate net earnings of the General Motors Co. for the year ended October 1, were about \$10,500,000 after deduction of depreciation. Several of the subsidiary companies make a specialty of truck and general business vehicles. This is a branch of the business which the company is not overlooking, and which should add considerably to future profits.

"Of the entire production of 33,000 1910 models of the General Motors Co. subsidiaries, less than 2,000 cars now remain unsold or in agents' hands. It is believed that 40,000 of its 1911 models could be disposed of profitably if it is thought best to turn out that many."

#### Intercontinental Still Has No President.

According to the annual report of the Intercontinental Rubber Co., that corporation, which is supposed to have a great deal to do with shaping the price of crude rubber, earned a net profit of \$2,268,184 during its fiscal year which ended July 31st last. The details of the statement are as follows:

Gross profits .....	\$2,369,795
Administration and general expenses .....	101,611
Net profits .....	\$2,268,184
Dividends .....	912,441
Surplus .....	\$1,355,743
Previous surplus .....	248,944
Total surplus .....	\$1,604,687
Deduct amount transferred to general reserve account, equal to preferred stock retired during year .....	1,050,000
Preliminary expenses charged off .....	24,320
Profit and loss surplus .....	530,366
The cash in bank July 31, 1910, amounted to .....	\$1,131,518.

At the annual meeting of the company last week, at which the financial statement was rendered, Charles H. Sabin, vice-president of the Mechanics & Metals Bank, and Walter Dutton, secretary of the Intercontinental company, were elected directors, increasing the number from nine to eleven. Later the directors re-elected Edward A. Aldrich vice-president and treasurer and Walter Dutton secretary and assistant treasurer. Willard T. Smith was elected assistant secretary. The office of president still remains vacant.

#### Oliver Pays \$50,000 for National Cutlery.

The Oliver Motor Car Co., which recently was organized in Detroit to manufacture light delivery wagons, has purchased the entire plant of the National Cutlery Co., located at Lawrence avenue and Buchanan street. The purchase, which cov-

ers the machinery, includes four brick buildings, each 40 x 200 feet. The consideration was \$50,000.

#### Detroit Lamp Makers Enlarge.

The Edmunds & Jones Mfg. Co., which manufactures lamps in Detroit, has increased its capital stock from \$25,000 to \$50,000, and is preparing to erect an addition to its plant. The new building will be 67 x 200 feet, of brick and steel construction.

#### Receiver for Detroit Motor Company.

The Detroit Trust Co. has been appointed receiver for the Thrall Motor Co., Detroit, Mich., following the petition in bankruptcy filed by three creditors. The latter alleged that the Thrall company committed an act of bankruptcy on September 12th last when it made an assignment of its stock and machinery.

#### Changes Among Prominent Tradesmen.

Cash F. Barker, former sales manager of the American Motor Car Co., has been appointed assistant manager of the Fiat branch in Chicago.

Wiley F. West has been appointed manager of the St. Louis (Mo.) branch of the Firestone Tire & Rubber Co. He was formerly manager of the Atlanta (Ga.) branch of another tire company.

George L. Schofield has been appointed general manager of the Elkhart Motor Car Co., Elkhart, Ind., makers of the Sterling car. He succeeds John T. Knott, who has retired from the automobile business to go into real estate.

James Bourquin, superintendent of the Chalmers Motor Co., has resigned that position to become factory manager of the Paige-Detroit Motor Co. Previous to his Chalmers connection he had been identified with the Olds and Peerless companies.

R. M. Palmer has been transferred from the general management of the Cartercar Co., Pontiac, Mich., to the similar office in the Oakland Motor Car Co., of the same city, both concerns being General Motors' properties, Palmer takes the place vacated by Lee J. Dunlap.

J. Henry Glismann has been elected president, treasurer and general manager of the Syracuse Rubber Co., Syracuse, N. Y., to fill the vacancies created by the death of Frank C. Howlett. Glismann had been associated with Mr. Howlett for many years, latterly as assistant treasurer of the Syracuse Rubber Co., which is an extensive jobber of tires and accessories.

F. Carleton Dole, of Boston, has been appointed district manager of the United States Motor Co., Brush runabout department, with headquarters in the Hub. To accept the post, Dole retires from the presidency of the George J. Dunham Co., of Boston, which has the New England distributing agency for Royal Tourist cars.

## DISCUSSED RAILROAD MATTERS

### Factory Traffic Managers Hold Conference in New York—Freight Rates Claim Much of Their Attention.

Traffic managers and men in charge of shipping and receiving departments of factories met at the offices of the National Association of Automobile Manufacturers, 7 East 42d street, New York, Monday and Tuesday of this week, when the freight rate situation as pertaining to automobiles and factory material and supplies was discussed in detail.

The meeting was called by J. S. Marvin, general traffic manager of the National and Licensed associations, and dealt particularly with matters pertaining to the Official Classification committee, which controls freight rates east of the Mississippi and north of the Ohio, the Official Classification committee also being in session in New York at this time.

Marvin presided at the conferences, and specifications considered vital by railroads in fixing rates were submitted by the various factory representatives in relation to engine and gear parts, hoods, wind shields, seats, flanges, bodies and various other items in which the automobile industry is interested, and which the railroads had on their docket for consideration. Argument on the various ratings was presented at the meeting of the Official Classification committee on the 27th ult.

Factory representatives at the meeting included: O. F. Baughman, Winton Motor Carriage Co.; T. E. Drews, Hupp Motor Car Co.; W. J. Gordon, Anderson Carriage Co.; R. C. Hurd, Hudson Motor Car Co.; John A. Moore, United States Motor Co.; H. R. Moule, Chalmers Motor Co.; C. J. Shaar, Packard Motor Car Co.; F. Shaw, E-M-F Co.; H. S. Stebbins, General Motors Co.; W. E. Tigges, Willys-Overland Co.; C. L. Warner, Locomobile Co. of America; A. C. Westfall, Cadillac Motor Car Co.; E. L. Wratten, Mitchell-Lewis Motor Co.; and W. L. Miles and W. M. Young, representing Willys-Overland Co., Nordyke & Marmon Co., and other Indiana manufacturers.

### Miller Opens His Twelfth Branch.

Charles E. Miller has opened a branch store at Dwight and Bridge streets, Springfield, Mass. It is twelfth in the Miller chain of supply houses. Incidentally, his Brooklyn (N. Y.) store is being removed to 1421 Bedford avenue.

### Chicago Show Space is Apportioned.

Allotment of space at the Chicago show constituted the chief business transacted at the meeting of the National Association of Automobile Manufacturers held in New York yesterday. The applications were

more numerous than ever before, 101 manufacturers asking for space for pleasure cars at the first week's display and 49 applying for room for commercial vehicles which, with the overflow of pleasure cars, will occupy the second week. The Motor and Accessories Manufacturers will as usual apportion space to their own members.

### Prices of E-M-F and Flanders Reduced.

The prices of E-M-F "30" and Flanders "Twenty" cars have been reduced, according to announcement made in Detroit on Wednesday of this week. The larger car, which heretofore has sold for \$1,250, will be listed at \$1,000 in the future, while the price of the Flanders has been lowered from \$750 to \$700. Reductions in the cost of materials together with the E-M-F company's heavy paid investment in tools, are given as the causes that enable the cut to be made, it being stated that the cars can be produced at the new figures with the same margin of profit enjoyed two years ago. It is the understanding that the change of price will not affect dealers' discounts. While the two present models remain unchanged mechanically, it is intimated unofficially that a third model of seven passenger capacity and built to sell for less than \$2,000 is in process of construction.

### Dexter Heads the Grout Company.

At the annual meeting of the Grout Automobile Co., Orange, Mass., last week, the following officers were elected: President and secretary, G. E. Dexter; treasurer, E. S. Hall; directors, E. S. Hall, G. E. Dexter and H. F. Misener; general manager, E. S. Hall; selling agent, Reginald Wade; superintendent of factory, H. F. Misener.

### Gear Makers in Bankruptcy Court.

Alleging insolvency and preferential transfers of property and accounts, creditors have filed a petition in bankruptcy against the Carpenter-Kerlin Gear & Machine Co., of New York City, importers of machinery and manufacturers of automobile gears. Liabilities are \$30,000 and assets \$8,000.

### Wants to Build Engines in Detroit.

The Rapp Motor Co., which has been incorporated in Michigan with \$1,000 capital stock, and which purposes manufacturing automobile engines, is seeking a location in Detroit. Its principal stockholders are James H. Christian and Hiram B. Sackett.

### Hupmobile Gets Into Great Britain.

As the result of a visit to this country by Messrs. Whiting and Truscott, of Whiting, Ltd., of London, that company has been appointed British agent for the Hupmobile. The contract calls for 500 cars, 200 of them for immediate delivery.

## COURT RULES IN VELIE'S FAVOR

### Wisconsin's Supreme Bench Rules Against Four A. L. A. M. Defendants—\$500,000 Damage Suit Must Go to Trial.

Whether or no the Association of Licensed Automobile Manufacturers is "intended and does constitute an unlawful agreement or combination in restraining of trade," and whether or no its members are liable as parties to such an illegal combination apparently will be passed upon by the Wisconsin courts at least, the supreme bench of that state by a close decision having cleared the way for a trial of the action instituted by the Velie Motor Vehicle Co., of Moline, Ill., in which the allegation of "unlawful agreement or combination" was set up.

The Velie company was one of those which had not obtained a Selden license and, as will be recalled, several months since instituted suit against some twenty odd members of the A. L. A. M., making service on their agents in Milwaukee and also making one of the agents a party to the suit, which fixed \$500,000 as the amount of damage which the Velie company has sustained by reason of the "unlawful agreement or combination."

The various defendants sued out writs of prohibition to prevent progress of the action, basing their position on the ground that while the agents in Milwaukee on whom service had been made sold their goods, and thus represented their wares, they were not, in the legal sense, agents for the respective companies. The court accepted this view in the cases of all save four of the defendants. These four, the Pierce Motor Car Co., Chalmers Motor Co., Locomobile Co. of America and Pope Manufacturing Co., were held to have been properly served. They then appealed to the supreme court for the necessary writ of prohibition and it is this case which that tribunal just has decided. It rendered its decision on the 4th inst., denying the applications for the writ, thus requiring the suits to go to trial. The court was divided, three of the seven judges being opposed to the decision rendered.

### Dates Selected for Toronto Show.

February 25th to March 4th have been set as the dates for the annual show in Toronto, Can. As heretofore, it will be held under the auspices of the Ontario Motor League, with E. Wilcox as manager.

### To Make More Axles in Fort Wayne.

The Wayne Auto Co., of Fort Wayne, Ind., has let contracts for the construction of a new building at Hayden and McCulloch streets in that city. Work on it will be commenced before snow-fly.

**The Week's Incorporations.**

Charleston, S. C.—Rouse-Pegues Co., under South Carolina laws, with \$10,000 capital; to deal in motor cars.

Cleveland, Ohio—Cuyahoga Mfg. Co., under Ohio laws, with \$10,000 capital; to deal in automobiles and other vehicles.

Tacoma, Wash.—St. Helens Garage, under Washington laws, with \$5,000 capital. Corporators—G. D. Rushmore, T. W. Little.

Plainfield, N. J.—Century Tire Co., under New Jersey laws, with \$125,000 capital; to manufacture automobile and motorcycle tires.

Houston, Texas—Diamond Rubber Co., a corporation of New York, admitted to do business in the state of Texas, with capital of \$10,000.

Detroit, Mich.—Nederlander Auto Co., under Michigan laws, with \$5,000 capital. Corporators—Harry, George, Robert and David Nederlander.

Chicago, Ill.—Automatic Engineering Co., under Illinois laws, with \$100,000 capital. Corporators—A. C. Allen, A. E. Root, George T. Clithers.

Kansas City, Mo.—R. H. Collins Motor Co., under Missouri laws, with \$50,000 capital. Corporators—R. H. Collins, D. B. McCoy, J. F. Martin.

Toledo, Ohio—McLeary Engineering Co., under Ohio laws, with \$25,000 capital; to manufacture and sell motors for automobiles and aeroplanes.

Newark, N. J.—Wilson Motor Car Co., under New Jersey laws, with \$50,000 capital. Corporators—Samuel L. Wilson, John Foley, Jr., Gustave A. Lutz.

Oklahoma City, Okla.—Oklahoma Ford Co., under Oklahoma laws, with \$25,000 capital. Corporators—Wm. Bennington, Lee W. Melcher, L. T. Bennington.

Otterbein, Ind.—Opp-Holder Automobile Co., under Indiana laws, with \$4,000 capital; to deal in automobiles. Corporators—A. T. Summer, George Holder, J. R. Opp.

Portland, Ore.—United Auto Co., under Oregon laws, with \$50,000 capital; to conduct general garage business. Corporators—E. E. Cohen, Arnold Cohen, J. C. Beck.

New York City, N. Y.—West Side Garage & Motor Co., under New York laws, with \$10,000 capital. Corporators—William M. Higgins, David H. Higgins and others.

Augusta, Me.—Colby Motor Co., under Maine laws, with \$1,000,000 capital; to manufacture and sell motor cars and parts thereof. Corporators—R. S. Buzzell, M. M. Farrar.

Camden, N. J.—Eastern Motor Sales Co., under New Jersey laws, with \$100,000 capital; to operate motor vehicles. Corporators—F. R. Hansell, William F. Eidell, John A. McPeak.

Joliet, Ill.—Acme Auto Appliance Co., under Illinois laws, with \$5,000 capital; to manufacture automobiles and supplies.

Corporators—Harvey Wood, Maurice Lennon, John Garnsey.

Merchantville, N. J.—Merchantville Auto Co., under New Jersey laws, with \$25,000 capital; to deal in automobiles. Corporators—Harry E. Bodine, Milton R. Vail, Charles F. Woodhill.

Hamilton County, Tenn.—J. C. Green Automobile Co., under Tennessee laws, with \$15,000 capital. Corporators—Sam Erwin, J. C. Green, E. B. Craig, Jr., J. C. Guild, J. A. Chambliss.

Newark, N. J.—American Auto Co. of New Jersey, under New Jersey laws, with \$100,000 capital. Corporators—John DeWitt, Albert B. Aschenbach, Harry W. Morehouse, all of Newark.

Chicago, Ill.—Commercial Electric Motor Mfg. Co., under Illinois laws, with \$10,000 capital; to manufacture motors for all purposes. Corporators—Charles Endorf, Jr., C. V. Mount, F. S. Schooler.

Chicago, Ill.—German-American Ball-Bearing Mfg. Co., under Illinois laws, with \$100,000 capital; to manufacture automobile machinery and tools. Corporators—R. A. Schultz, L. Gaines, C. F. Schultz.

Boston, Mass.—New England Auto Specialties Co., under Massachusetts laws, with \$50,000 capital; to manufacture all kinds of accessories and specialties. Corporators—F. M. Snyder, E. A. Wonsor.

Buffalo, N. Y.—Richardson Auto Tire Co., under New York laws, with \$100,000 capital; to manufacture tire protectors for automobiles. Corporators—J. Richardson, O. Richardson, V. Hoeffner, all of Buffalo.

Atlanta, Ga.—Consolidated Motor Co., under Georgia laws, with \$25,000 capital, with privilege to increase to \$100,000; to deal in motor cars. Corporators—R. B. Ridley, Jr., Marshall Johnson, R. C. Howard.

Portland, Me.—Roader Car Co., under Maine laws, with \$1,000,000 capital; to manufacture and deal in automobiles and other motor vehicles, power boats, motorcycles, etc. Corporators—P. J. Larrabee, C. L. Beedy.

Lawrence, Kan.—Lawrence Auto Wheel Co., under Kansas laws, with \$10,000 capital; to manufacture patented wheel for automobiles. Corporators—F. H. Durgin, W. K. Folks, Clyde D. Faler, J. P. Cosand, S. D. Bishop.

Brooklyn, N. Y.—The Powell Engine Corporation, under New York laws, with \$10,000 capital; to manufacture automobiles, machinery, motors and engines. Corporators—L. P. Powell, R. W. Powell, C. I. McLaughlin.

Akron, Ohio—American Tire & Rubber Co., under Ohio laws, with \$200,000 capital; to manufacture and sell all kinds of rubber articles, motor car and motorcycle tires. Corporators—Frank L. Kryder, Adam Duncan, G. C. Waltz, Harvey Musser, J. R. Huffman.

**Increases of Capital.**

Akron, Ohio—A 1-Ton Motor Co. increases capital from \$50,000 to \$100,000.

Indianapolis, Ind.—Cole Motor Car Co. increases capital from \$78,000 to \$100,000.

Cincinnati, Ohio—Cincinnati Panel Co. increases capital from \$50,000 to \$100,000.

Princeton, Ohio—DeWitt-McIntyre Co. changes name to H. H. DeWitt Co. The firm manufactures gears for automobiles.

**Recent Losses by Fire.**

New York City, N. Y.—Eureka Garage, Eighth avenue and 122d street, damaged.

Minneapolis, Minn.—Frank A. Cotter, 2650 Pleasant avenue; garage destroyed. Damage heavy; cause unknown.

Cincinnati, Ohio—Suburban Automobile & Garage Co., building and 20 automobiles destroyed; loss estimated at \$40,000.

Salt Lake City, Utah—Utah Motor Car Co.'s garage, 127 South State street, damaged by fire caused by gasoline explosion. Loss, \$1,000.

**Victor Enlarges Capital and Plant.**

The Victor Motor Car Co., which in a small way has been manufacturing cars in St. Louis, Mo., for several years, has increased its capital stock from \$30,000 to \$150,000 and has let contracts for a considerable enlargement of its plant at Boyle avenue and Papin street. Two stories will be added to the present one story building, 9 x 112 feet, and another three story concrete structure will be erected, which, when completed about January 1st next, will permit the company's working force to be increased from 40 to 300 men.

**Newark Leaves, Rands Joins United.**

The United Manufacturers, of New York, have lost a wind shield account and gained one. The account lost is that of the Newark (N. J.) Rivet Works, makers of the Friction windshield, which has withdrawn from the United organization; the account gained is that of the Rands Mfg. Co., of Detroit, which, of course, has entered into the United Manufacturers' selling arrangement. The Newark Rivet Works henceforth will market its own product.

**Cartercar Takes Over Chicago Business.**

The Cartercar Co. has leased the premises 324 Michigan avenue, Chicago, which will be equipped and conducted as a factory branch. It will be in charge of Charles E. Hammerly, who has had the Chicago agency for the Cartercar for several years.

**To Handle Trucks in Los Angeles.**

The Buffalo Motor Truck Co. is the name of a new concern which just has started in business at 321 San Fernando building, Los Angeles, Cal. I. G. Lewis is the moving spirit of the new company, which will handle Buffalo commercial cars.

## IN THE RETAIL WORLD.

George H. Cram has opened a garage on Pleasant street, Beloit, Wis.

F. T. Lisco, of Hood River, Ore., is erecting a garage at a cost of \$14,000. The structure will be three stories high.

The Tri-State Rubber Co., of Minneapolis, Minn., has moved to new quarters at 1017 Nicollet avenue. Charles J. Parker is in charge.

Fred C. Neidermiller has been elected secretary of the Autoparts Mfg. Co., of Detroit. Previously he was receiving teller of a savings bank in that city.

The Warren Automobile Co. is the style of a new concern which has engaged in business at 1 State street, Cambridge, Mass. W. S. Sandeman is in charge.

The Duncan Automobile Co., of Bagley, Ia., has sold its business to the Gardner Automobile Co., a new concern organized by several business men of the same town.

Wells Matthews, a business man of Dayton, Ohio, has been appointed receiver for the People's Motor Car Co., of the same city, upon application filed by Lucien A. Seward, one of the creditors.

The Fort Worth Auto Supply Co. has been organized in the Texas city of that name and has located at 509 Commerce street. It will carry a full line of supplies and maintain a vulcanizing department.

Charles L. Rodgers, formerly with the Inter-State agency in Attleboro, Mass., has opened a garage of his own on Wall street, the same town. He will confine himself strictly to renting, storing and repair work.

The Hale Motor & Machine Co., of Detroit, Mich., is erecting a new factory, 194 x 64 feet, on Franklin street near Chene street. The building is of brick and mill construction and will be completed by December 1st.

The Wilson Motor Car Co. is the style of a new concern which has opened a garage at the corner of Clinton avenue and 21st street, Newark, N. J. Samuel F. Wilson, John Foley and Gustave Lutz are the men interested in the enterprise.

Russell & Albrecht, owners of a garage at 432-438 West Main street, Kalamazoo, Mich., have sold their business to David Reid, of South Haven, Mich. Reid expects to instal a taxicab service in connection with his regular garage work.

The Olds-Oakland Co., of Boston, Mass., has been dissolved, and each car hereafter will be represented by separate agencies. George W. Houk has been placed in charge of the Oldsmobile agency, with headquarters at 97 Massachusetts avenue.

The Economy Auto Supply Co. has been organized in Newark, N. J., where it will occupy the two-story building comprising No. 268 Halsey street. Theodore Kaplan and Edwin Elin are the responsible men. They will handle accessories only.

E. J. DeVille and W. H. Yeazell have organized the Standard Motor Car Co., of Dayton, Ohio, with headquarters at 25 North Jefferson street. Marmon and Hudson cars are to be featured.

Storm Lake, Ia., reports "something doing" in its automobile trade. T. R. Brader & Son have purchased three vacant lots, and are erecting thereon a big garage, while J. C. Cleaveland has sold his business to C. F. Wellberling, of Rembrandt, Ia.

On Saturday next the Hartford Rubber Works Co.'s Boston branch will take possession of the handsome building comprising 863 Boylston street, which just has been completed. It is a five story structure and the Hartford branch will occupy all.

M. C. Crutchfield, formerly manager of the Factory Auto Supply Co., Chicago, Ill., has been made manager of the newly organized Manufacturers' Auto Tire Co., of which W. A. McGivern is president. Its headquarters are at 3029 Michigan avenue.

Pope-Hartford and Overland cars will be shown in the salesrooms of the Pope-Hartford Motor Car Co., 5883-87 Delmar boulevard, St. Louis, Mo., which just have been opened. The company is capitalized at \$50,000, with a privilege to increase it to \$150,000.

F. R. Sunderlin and C. W. Simpson, both of Des Moines, Iowa, have formed a company under the style Sunderlin & Simpson and taken over the business of the Collins Garage Co., with headquarters at 2126-28 Cottage Grove avenue. Rebuilding and repairing will be a specialty of the new firm.

Under the style the Crown Garage & Machine Co., a new concern has been formed in Corona, Cal., with headquarters at the corner of Sixth and Ramona streets. Besides carrying E-M-F, Flanders and Buick cars, the firm will handle accessories, motorcycles, bicycles, electric supplies, engines, pumps, etc.

The Herring Motor Car Co., of Des Moines, Ia., has bought out the business of the Campbell Automobile Co. and will continue the distribution of Rambler cars in connection with its own business as Ford agents, at 912-914 Locust street. I. R. Campbell has gone to the Rambler factory to become a district manager for the T. B. Jeffery Co.

Dr. E. G. Watts, who owned 98 per cent. of the stock of the Western Automobile Co., Portland, Ore., has sold his holdings to the East Side Automobile Co., for the sum of \$15,000. The East Side company, of which J. H. Kelly is manager, will handle Knox, Premier and Moline cars at 531 Alder street, the former headquarters of the Western concern.

Heralded as the most modern and best equipped automobile building on the Pacific coast, a new garage and salesroom is being built by the Covey Motor Car Co.,

at 21st and Washington streets, Portland, Ore. J. G. Edwards is the manager of the new company. The building will be 120 x 120 feet, four stories high, of reinforced concrete, and will cost \$90,000.

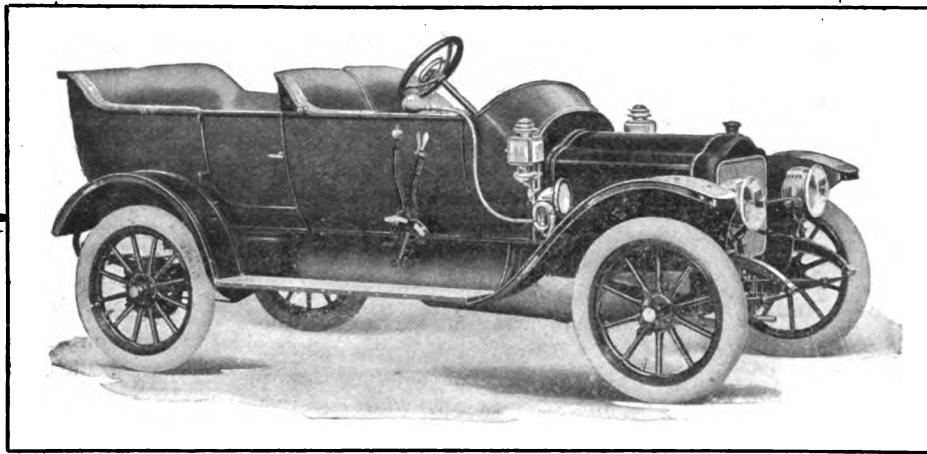
After hearing arguments in the matter of the Frazelle Auto Co., of Springfield, Ohio, Judge Hollister denied the application for a receiver. The creditors of the company had petitioned it into bankruptcy, alleging preferential treatment of some creditors on the part of Glenn Frazelle, and attempts of settling on the basis of 25 cents on the dollar, while sufficient assets are said to have been extant to pay all creditors in full.

Greatly enlarging the scope of its business, the Means Automobile Co., of Des Moines, Ia., has opened a new salesroom at 309-311 East Walnut street, adjoining its former place. In addition to Moline, De Tamble and Hupmobile cars, the firm hereafter will act as distributor for Cole "30," Fal cars and Gleason trucks. George Means, president of the company, is distributor of all these cars, excepting the Cole, for the entire state of Iowa.

D. F. Patterson, H. V. Kell, D. S. Walraven, C. M. Love and G. W. Hanson have sold their holdings in the Georgia Motor Car Co., Atlanta, Ga., to J. J. McLendon and several associates. The business will be carried on under the same name, and National and Everitt cars will be shown as heretofore. The price paid is said to have been \$30,000, while an additional \$40,000 is to be spent on a new garage and salesroom in course of construction at 33-35 Auburn avenue.

Under the style the Thomas-Mercer Motor Co. a new firm has been organized at Los Angeles, Cal., F. W. Force, of the Mercer Auto Co., and A. M. Young, Columbia agent, having joined forces and taken the garage formerly occupied by the Wilson & Buffington Co., agents for the Thomas. Young has relinquished his claims to the Columbia agency, and the latter has been merged with the Maxwell line under the control of the United Motors Los Angeles Co. The headquarters of the new firm are located on Olive street, near Ninth.

Due to the formation of C. R. Teaboldt & Co. in New York, Owen and Bergdoll cars have obtained an unusually auspicious entry into the metropolitan district, Teaboldt being one of the most widely known and most favorably acquainted tradesmen in the territory which he will control. Teaboldt, who was successfully identified with the Packard and Thomas branches, is president and treasurer of the new concern, of which G. F. Aitken is secretary. They temporarily are located at 1896 Broadway, but shortly will occupy permanent quarters at No. 1547 on the same thoroughfare. An aggressive campaign in the big city itself and in the surrounding counties will be immediately instituted.



## The Cost of a Car

**T**HE cost of an automobile is not what you pay for it, or the initial investment—but what it costs to maintain—the number of miles on a gallon of gasoline—the number of miles on a set of tires—the oil bills—the incidental repairs. It is the answer to this question that either makes a car a luxury afforded by few, or the proper kind of transportation at a reasonable cost.

The White Gasoline Cars have solved these problems economically. A White Gasoline Car has a four-cylinder motor cast en bloc, which economizes in size and weight—it has extreme length of stroke, which allows the cylinders to be of moderate size. In consequence, the car is of moderate weight and easy on tires—one of the most important items in up-keep.

The car has four forward speeds, a flexibility found only on the most expensive cars, which allows the engine to run at a speed more economical, and more suited to the purpose of the driver. Again, White Cars are marvels of simplicity, which makes them easy to operate and easy to keep in order. When it comes to mechanical features, ask any engineer, regardless of his personal bias, and his answer must be that no car is better built.

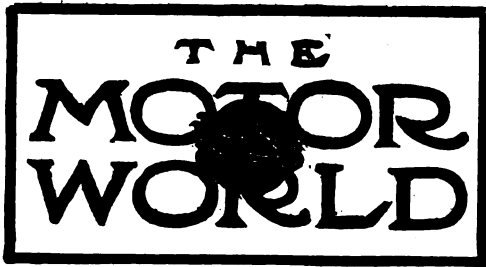
Many agencies now open for White Gasoline cars and trucks, also steam and passenger cars. Demonstrators should be bought at once for early delivery.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO





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#### Opportunities for City Garagemen.

Whatever may be said of inflation in the automobile industry and of the truth or exaggeration of the impression which obtains in some quarters as to its magnitude there can be little question that the garage business is in danger of being overdone. With the conversion of stable keepers to the business and the transformation of large numbers of their establishments to the uses of motor vehicles, there is a constant influx to the ranks of garages and repositories that already is threatening the prosperity of the business in more than one locality.

The garage business is peculiar. It always has possessed certain characteristics not shared by any other line of business effort, and its unusual features seem to be multiplying instead of diminishing as time goes on. For example, most garagemen who devote themselves exclusively to the storage and repairing of cars are ready to

declare that it is extremely difficult to extract a competence from the business by legitimate conduct of its affairs. Yet the phenomenon is witnessed of a constant increase in the number of such establishments and, at least in some instances, of that invariable accompaniment of competition, a "revision downward" of charges for storage, etc.

This may be good for the motorist but it is not altogether good for the garageman who has been striving in an honest way to build a solid and enduring business. It puts him to the unpleasant task of reducing his own expenses while trying to meet his competitors and at the same time forces him to redouble his efforts to obtain and retain his trade. The condition, of course, is beginning to be felt only in the great cities; the great majority of cars that are being sold to the agricultural element are housed in barns and wagon sheds.

Examining the growth in motor vehicle usage in the larger communities, however, it is plain that a great and growing number is of the business vehicle class—a class in many respects less exacting upon garage service than the light passenger vehicle and far more uniform and dependable in the nature of its patronage. The increased adoption of motor trucks by business houses already is creating a demand for suitable garaging facilities, a demand which must be satisfied in the most expedient and economical manner, and that garageman who, finding himself pressed for business, does not reach out for the commercial vehicle trade, is overlooking an opportunity that is full of rich promise. He would be likely to find it more stable and profitable than the pleasure vehicle field.

#### "Truck Tests" that Prove Nothing.

At present the industry is threatened with an epidemic of power wagon contests that is entirely unsought by the manufacturers and that promises to be of doubtful value in the upbuilding of that portion of the market which should be cultivated so cautiously. The situation is peculiar in that the honor of this publicity is being thrust upon the builders of commercial vehicles by the usually coy and reluctant newspapers. To that extent, the promotion of such trials is not without its element of humor.

The difficulty is that the common run of such undertakings are devised to show results that are bound in the circumstances to

be falsely inspiring, though not intentionally misleading. By the delightfully simple process of sending a large number of laden vehicles over a course and subsequently dividing the product of their load weights and the distance traversed by the cost for fuel and oil, a ton-mile cost is derived that is boldly compared with freight rates and kindred expenses which the dissatisfied shipper may be inclined to consider as exorbitant. To add to the enormity of the offense, machines of all classes are marshalled under the same contest formula, the only allowances granted them being in the way of concessions in the speed schedule; even electric vehicles are taken out of the proper zone in city service and put to the arduous test of endurance contests over country roads!

The idea of publishing figures obtained by this wholesale, if elementary, method of calculation would not be so objectionable were it not for the fact that they are destined to be projected into the public prints for the supposed education of the public. The almost inevitable consequences of thus placing the motor truck in a false position are not pleasant to contemplate. Popular education in this, as in other directions, cannot be advanced materially by any species of campaign in which important items, facts which in other commercial undertakings always are seriously considered, are ignored in obtaining favorable results. The effect might not be so harmful if the "ton-mile costs" developed were treated merely as competitive scores. To hold them up as items of educational importance is plain folly. They are not ton-mile costs, but supplies costs figured on a ton-mile basis, which is both a distinction and a big difference.

It is not to be imagined that no sort of commercial vehicle contest can be of true value to the industry or to the public. The recent tri-fuel competition of the Automobile Club of France has its serious purpose, although it is held by some authorities that fuel consumption tests are apt in themselves to be of a misleading nature, even when carried out in a wholly scientific manner. The objectionable point about the present epidemic of newspaper tests, however, is that they are designed to include all sorts of vehicles irrespective of the specific purpose for which they are built, and that they really demonstrate practically nothing of the motor vehicle economy which they purport to indicate.

## FAIRMOUNT GETS NEEDED ENTRIES

**Success of Philadelphia's Big Race on Saturday Next Now Assured—Representative Field Will Start.**

Although up to a couple of weeks ago the prospect for entries for the Quaker City Motor Club's third annual road race in Fairmount Park, Philadelphia, on Saturday next, 8th inst., was not at all exhilarating, the list took a sudden up turn this week, 26 entrants having been corralled, most of them by missionaries of the club who attended the Vanderbilt cup race for the purpose. The complete roll to October 5th was:

Al. Mitchell and Len Zengle, Chadwick; Irwin Bergdoll, Edward A. Hearne, Al Hall Apperson; E. F. Schiefler, Jackson, William Endicott and Louis Edmunds, Cole; J. Fred Betz, 2d, W. C. Mullen and R. E. Beardsley, Simplex; Frank Kulick, Ford; Ray W. Harroun and Joseph Dawson, Marmion; Tobin De Hymel and Hugh N. Harding, Stoddard-Dayton; G. J. Wosser, Mercedes; J. D. Aitken and Howard Wilcox, National; H. P. Frey, Mercer; Joe Matson, Corbin; Mortimer Roberts and two unnamed, Warren-Detroit.

The race is 200 miles long and wholly within the city limits, part of the eight miles circuit being over Philadelphia streets. The course has so many sharp curves and corners as to afford unlimited spectacular effects. The lap record is seven minutes 41 seconds, made last year by Zengle in a Chadwick.

Following the fatalities of the Vanderbilt race it is announced that 3,000 patrolmen have been secured, which will permit of a guard being stationed at every 100 feet. It is declared that no person will be allowed to cross the track.

As the proceeds from grand stand seats and other privileges go to charitable institutions, the city of Philadelphia has given \$2,000 and the Quaker City Motor Club \$750 for the five silver trophies, there being five classes of cars, according to cylinder displacement. The winning driver in each of the five classes will get \$1,000 in cash, while the driver making the best time for the 200 miles, regardless of class, is to receive the chief prize of \$2,500.

### New Phase of "Joy Riding."

Of all the trends in motordom that toward utilitarianism is the most pronounced. Joy riding, especially after nightfall, was formerly the proper caper for chauffeurs, but now it is nearer the "correct thing" to be moving household effects with the boss's car or like the captain of a tug boat doing "general touring." It has been found that a limousine makes a fine moving van. Its closed body affords considerable storage space and on the rail protected top can be

## COMING EVENTS

October 6-7, Chicago, Ill.—Chicago Automobile Club-Chicago Athletic Association inter-club run for Myers trophy.

October 6-8, Santa Anna, Cal.—Automobile meet.

October 8, Richmond, Va.—Automobile races at state fair grounds.

October 8, Spokane, Wash.—Automobile meet at Interstate Fair.

October 8, Philadelphia, Pa.—Quaker City Motor Club's third annual 200 miles road race in Fairmount Park.

October 10-12, Amarillo, Tex.—Panhandle Fair Association's annual race meet.

October 10-15, Hot Springs, Ark.—Automobile races at Arkansas State Fair.

October 14-18, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 15, Mineola, L. I.—Motor Cups Holding Co., 278 miles international road race on Motor Parkway, for the Grand Prize of the Automobile Club of America.

October 15, Chicago, Ill.—Chicago Motor Club's reliability contest.

October 15-16, Philadelphia, Pa.—Automobile Club of Philadelphia fall tour, Atlantic City and return.

October 21-22, Boston, Mass.—Boston "American" commercial vehicle contest.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

October 28-29, New York City—Commercial vehicle test, under auspices New York American.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on Speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 7-11, Chicago, Ill.—Reliability contest under auspices Chicago Motor Club.

November 10-13, San Antonio, Tex.—San Antonio Automobile Club's races at International Fair grounds.

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 26-27, Los Angeles, Cal.—Motordrome races.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 5-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

carried family surplusages, including baby carriages, velocipedes, etc., just as on the delivery wagons of department stores.

In this connection William L. Colt, president of the Colt-Stratton Co., of New York City, tells of a motorist in the Bronx who is forced to keep his Cole touring car in a public garage of the section. Somehow its riding condition was not what it should be, considering the moderate use to which he put it, and, as a result, he kept watch several evenings on the boulevards, but the mystery seemed impenetrable. The other night, however, while crossing a downtown business thoroughfare he received a jolt when he saw his vehicle drawing an apparently disabled truck loaded with

household furniture. There was no mistaking the license number. Investigation proved that his chauffeur was regularly using it for such purposes.

### Red Rear Lights for All Vehicles.

Alderman Bent, vice-chairman of New York City's board of "city fathers," has introduced a resolution requiring all horse-drawn vehicles to display a red rear light as well as the white front one already provided for by law and which is displayed when the horseman feels like displaying it. A public hearing on the Bent resolution, which is much needed and which will add immensely to the safety of night travel, will be held on Monday next.



## GRANT RENEWS HIS GRIP ON THE CUP

**For the Second Time, He Triumphs in the Vanderbilt Race—Completes the 278 Miles in 256 minutes—But Dawson, an Indiana Whirlwind, Shares the Glory—Louis Chevrolet Emulates the Skyrocket—Fastest and Most Stirring of All Cup Races.**

Not only did the Vanderbilt cup race "come back" on Saturday last, 1st inst., but Harry F. Grant "came back" with it. He won the famous trophy last year and he won it again on Saturday. He completed the 278.08 miles in 255 minutes 58.64 seconds, an average speed of 65.1 miles per hour, which is the fastest sustained speed ever made on the Long Island course, on which, with variations, the five preceding cup races were decided.

Grant, a native of Cambridge, Mass., is the first man to "repeat;" and, unusual to relate, he "repeated" in the identical car, a 60 horsepower Alco, in which he triumphed in 1909. His victory, too, was earned in exactly the same fashion. He let those who would emulate the "skyrocket" and while they split the air with magnificent flight, and while the "ohs!" and "ahs!" re-echoed, Grant, driving as magnificently, if less impressively, never flickered. He simply kept "everlastingly at it"—steadily, consistently. When the skyrockets burst and their sticks were coming down or, figuratively, and in several instances literally, had struck the earth with dull thuds, Grant began to go up, that is, to forge to the front. He assumed the lead on the eighteenth lap and never lost it.

But Joe Dawson, a round-faced, sturdily-built young man hailing from Indiana and driving a war-stained yellow Marmon car, gave Grant the fight of his life. He "lost out" by a scant 25 seconds. But for a flicker—that is, trouble due to a leaking

gasolene line—on the eighteenth lap, Dawson simply must have won. Up to that period he was four minutes ahead of Grant. He lost all of this advantage and four min-



HARRY F. GRANT

utes more, and yet with slightly less than 50 miles to go he made up all but 25 seconds. That surely is "going some." Perhaps Grant may count himself lucky. Though he won the cup he simply must share honors with Dawson.

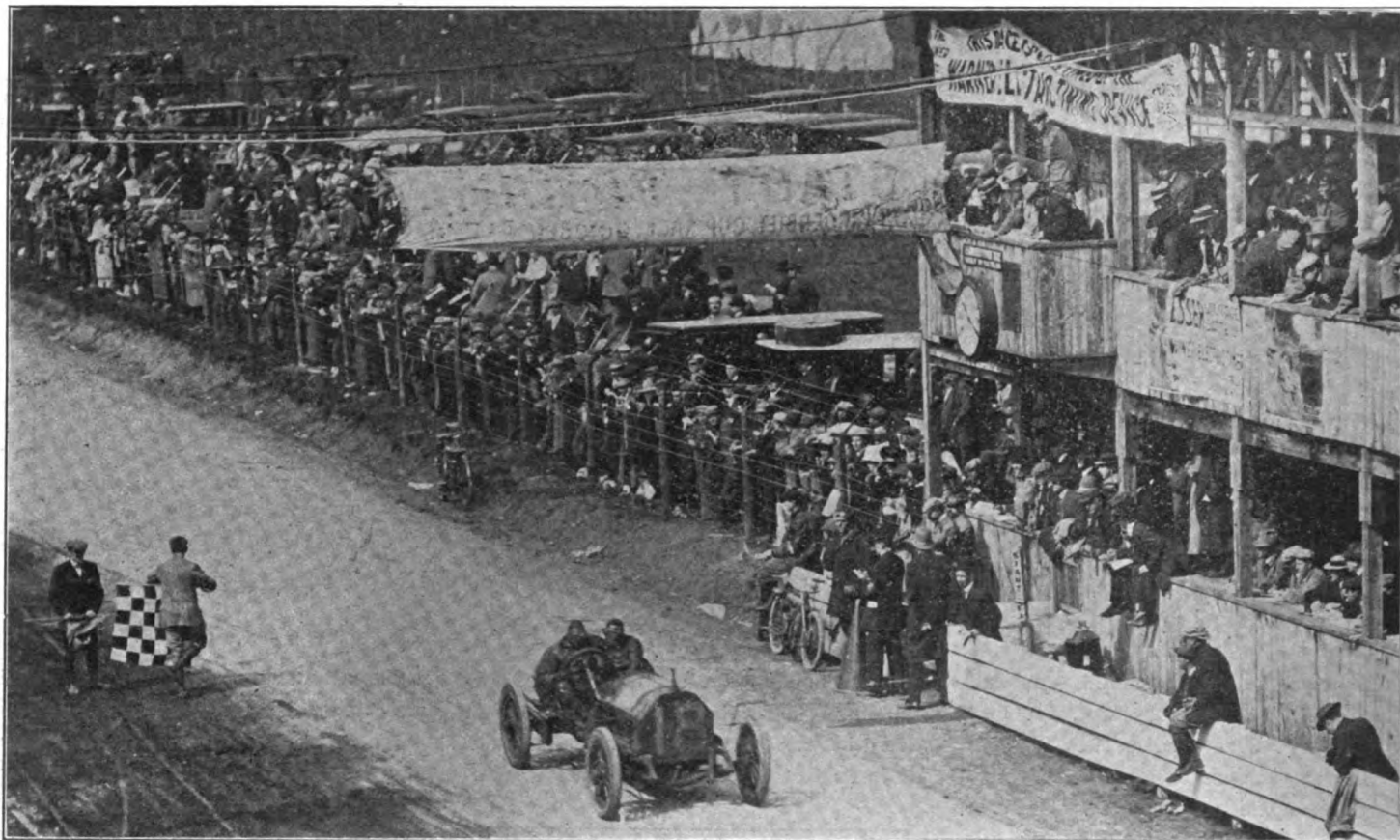
Dawson was one of the skyrockets, too. But the power behind him was sustained and sustaining power. Though he drove like a streak, his stick refused to descend. And the marvel of the man's performance lies not only in his skill and daring but in the performance of the car he drove. The Marmon was the "littlest car" in the race.

It was a four cylinder model, was rated at but 32 horsepower, and had a piston displacement of but 318 cubic inches. Grant's six cylinder 60 horsepower Alco had a displacement of 579.9 cubic inches. What a difference! Nor did the Marmon have marked advantage in weight. Its declared weight was 2,200 pounds; the Alco's 2,300 pounds. The heaviest car was Stillman's Oldsmobile—4,000 pounds. When laurels are being strewn, it's a fair shake, therefore, to cast a few sprigs in the direction of the men who made that Marmon.

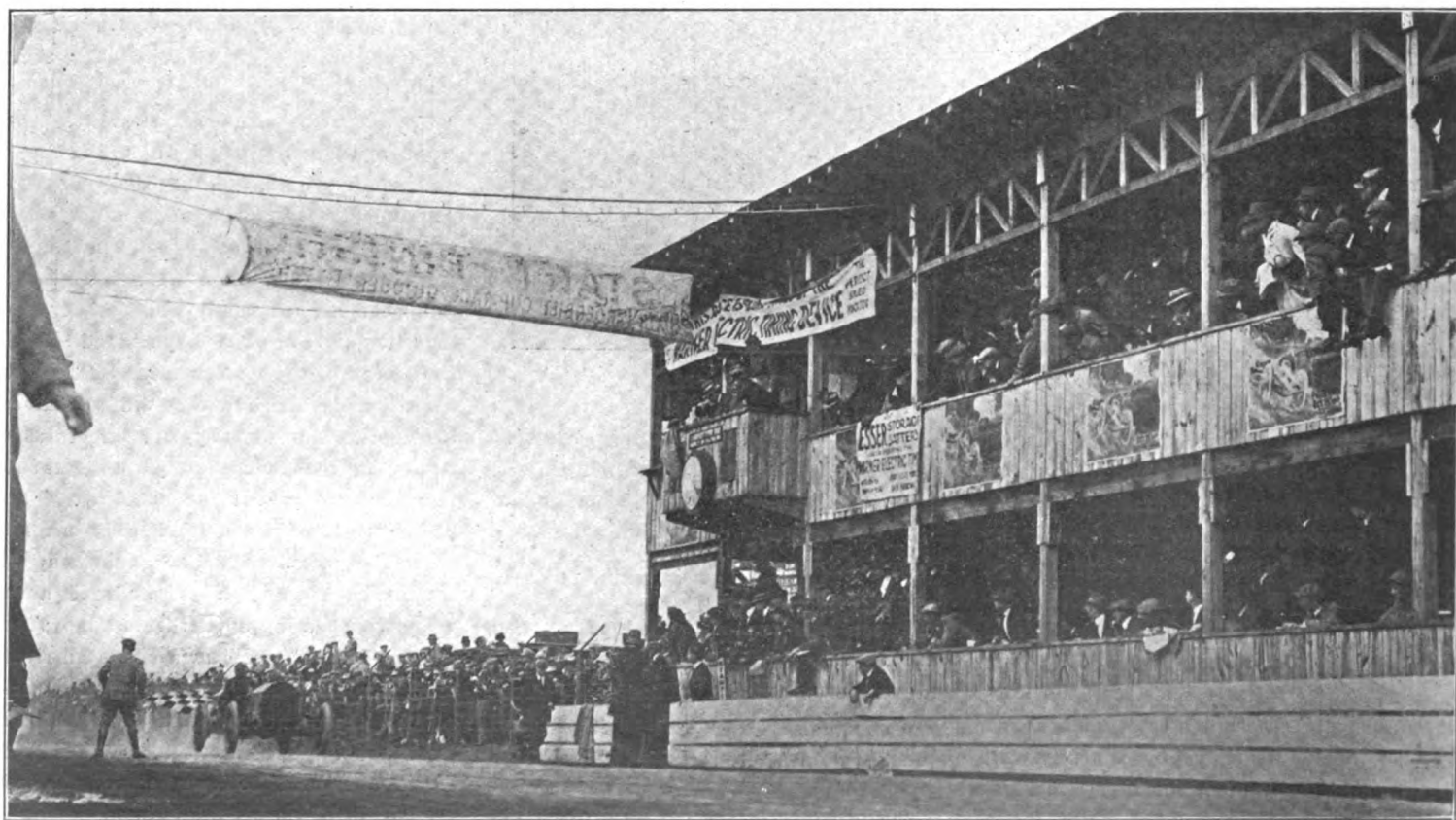
But in the early stages of the big race it was neither Grant and the Alco, nor Dawson and the Marmon, that filled the public eye. It was Chevrolet—two Chevrolets—and Burman and their Marquette-Buicks that occupied the center and both ends of the stage. The big hyphenated Buicks were near to the displacement limit of 600 cubic inches—and how they did go! Except to skeptics who actually laid wagers as to how long the Buicks would last, it soon seemed all over but the shouting. Their pace was tremendous—their roar magnificent; the race looked like a runaway for the three dare-devils who drove them. They were tearing off the fastest laps; they steadily were drawing away from all rivals, and then—one after the other the sticks of the skyrockets tumbled swiftly downward and the skeptics collected their bets. Louis Chevrolet, however, scored the fastest lap, 10:12, on his third round.

There were accidents; unfortunately they

THE SCENES WHEN GRANT AND DAWSON FINISHED THE CUP RACE.



GRANT (ALCO) RENEWING HIS GRIP ON THE CUP—FINISHING FASTER THAN HE STARTED



JOE DAWSON (MARCONI) COMPLETING HIS CYCLONIC PERFORMANCE, 25 SECONDS BEHIND GRANT

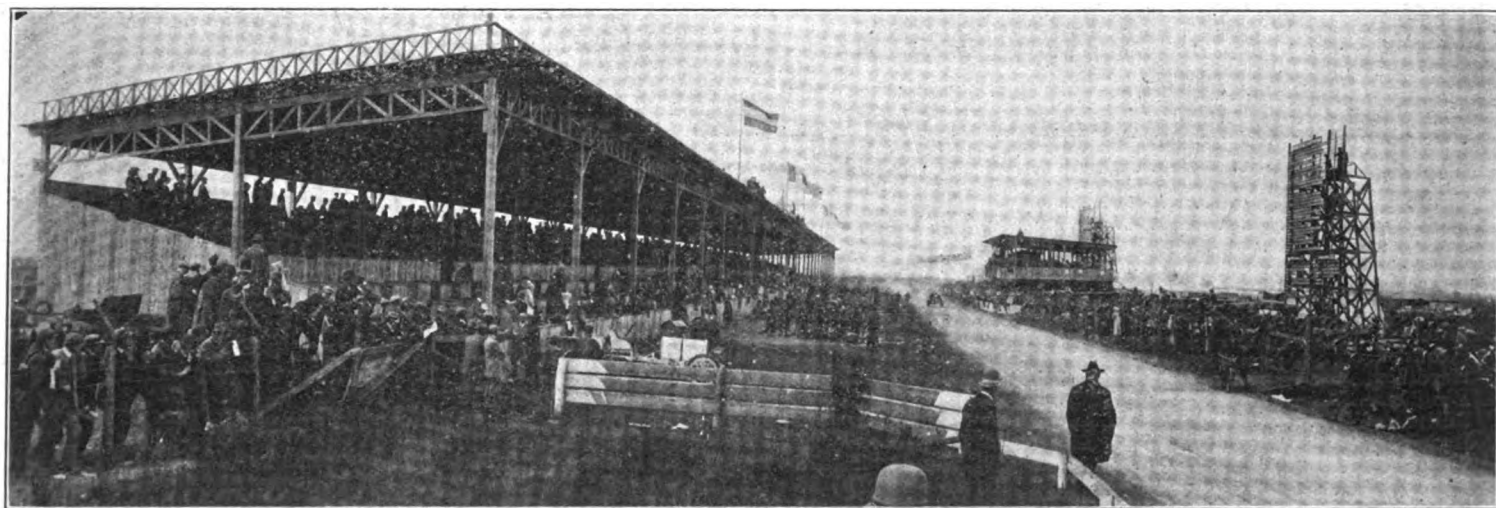


seem inevitable; in two of them, the mechanics of the racing cars involved met death. On the very first lap of the race the Columbia car, driven by Harold Stone, of Los Angeles, Cal., plunged through the railing of one of the overhead bridges on the Motor Parkway itself and rolled down the embankment, killing Milton R. Bacon, Stone's assistant, and fracturing both of Stone's legs. On the sixteenth lap, while he was moving at a tremendous pace on the straight road between Hicksville and Westbury, the steering gear of Louis Chevrolet's Marquette-Buick went wrong and the

car dashed from the course, crashing into and smashing the touring car of a spectator which was parked at the roadside, and then overturned after breaking three trees in its path. Chevrolet escaped with a dislocated shoulder, but the neck of his mechanic, Henry Miller, was broken. The spectators who occupied the touring car suffered one a broken arm, another bruises. Two other spectators had both legs broken; both men unwisely attempted to cross the course, and one was struck by De Hymel's Stoddard-Dayton; the other by Dawson's Marmon. Several other on-lookers sus-

tained minor injuries. Incidental to the race there were two deaths. In one case a car overturned in the dark of the early morning and the driver was killed and his wife injured; in the other a car supposed to have been en route from the course struck and killed an aged man miles from the scene of the race. The more sensational of the New York papers promptly acquired hysteria and by using a magnifying glass made appear that the race was akin to a slaughter house and that Long Island had been converted into a shambles. Some of them have not yet quieted their hysterics.

## Men and Things and Scenes Disclosed by the Dawn of the Day



GENERAL VIEW OF SCENE AT THE STARTING AND FINISHING POINT

The "coming back" of the Vanderbilt and the return to the daybreak start were attended by most of the scenes and no small part of the crowd that made the occasion such a spectacle and added to its fame. Of course there was no such crowd as marked the first race in 1904 or the one in the following year when France and Germany sent men and cars to "lift" the cup, and when automobiles and automobile racing were so novel that the superheated public fancy fired by a superheated press expected all manner of fantastic and diabolical doings. But there was, nevertheless, a huge crowd present on Saturday last, and very many of those who five or six years ago viewed the automobile as a devilish contrivance came to the scene in their own automobiles.

It is doubtful if ever before so many motor cars were gathered in a given space. There may have been 20,000 of them; there certainly were 10,000. For nearly three hours after the race there was an unending procession of cars nearly 20 miles long wending its way from the course to New York, not to mention shorter processions headed in other directions. Practically every foot of ground surrounding the circuit of 12.64 miles had been employed for parking purposes, and the car owners or other auto-

mobile interests had paid from \$5 to \$60 per car for the parking privileges. In the Pope-Hartford space near the grand stand, the cars, some 400 of them, were parked four to six deep. And the outpouring of that portion of the great green public which knows automobiles only by sight was unexpectedly great. Spectators fringed practically the entire course. At the danger points, the corners of the course, they massed in overwhelming numbers and projected themselves onto the course with the usual heedless disregard for personal safety. As always, the wonder is that so few were injured.

The country cops, recruited for the day and wearing borrowed coats and helmets many sizes too large or too small for them, were as grotesque and as useless as ever, and not even the two carloads of grey-coated Pinkertons brought from New York can be said to have covered themselves with glory. They may have been fatigued by the railway ride of 20 miles, as one of their superiors in all seriousness declared was the case. And the railway service, by the way, was, for the first time, more nearly what in theory it is supposed to be. It was reasonably expeditious and there were few delays either coming or going. The police service, however, showed no im-

provement. The yokels in their borrowed and ill-fitting clothes made the occasion a holiday, and if they had thoughts other than viewing the race and collecting their stipends, the result was not reflected in their action. One of the uniformed yaps spent the entire morning in the press stand perched on a bench. Another with an eye to "easy money" did a brisk business permitting spectators, for 10 cents each, to pass through an opening in the wire fencing which had been erected to keep them out of harm's way.

So far as the actual management of the race was concerned, it was well nigh flawless. Everything was conducted with promptness and despatch and with a snap that was reflected in the race itself. Even the task of starting the two minor races, the Wheatley Hills Sweepstakes and the Massapequa Sweepstakes, while the cup race itself was in progress, was performed so well that the scent of danger which it suggested quickly evaporated. The cars entered in these minor races had been parked in position before the big race started and at intervals of one hour the Wheatley Hills and the Massapequa contenders were under way so quietly that many persons failed to take notice when they were being given the word.

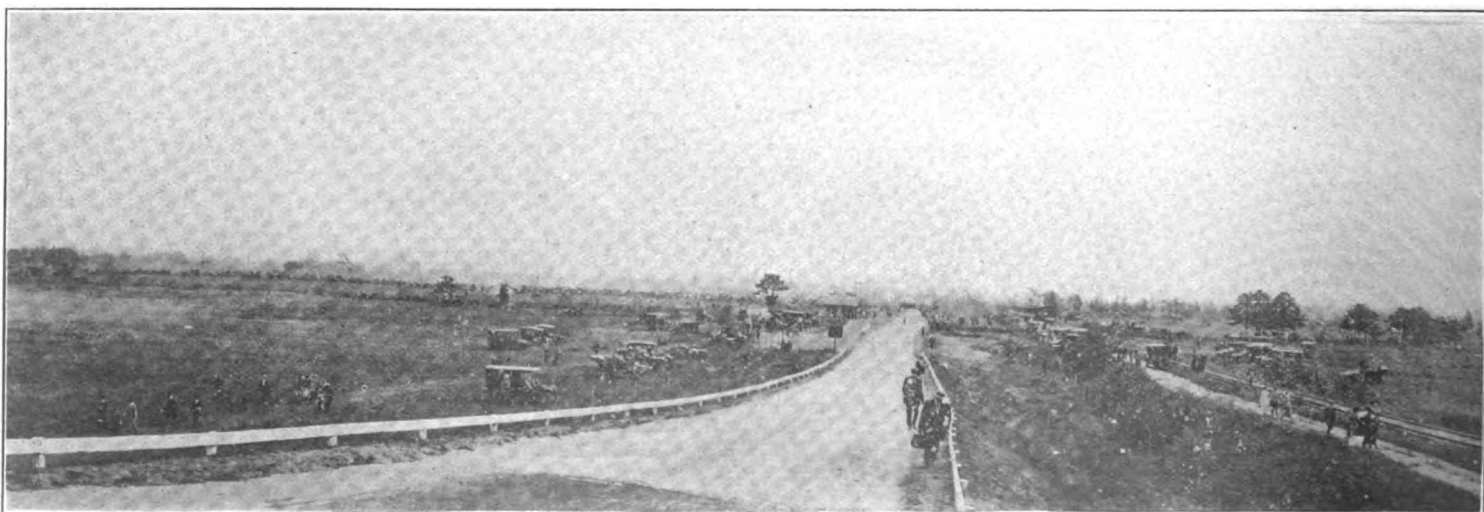




ONE OF THE MOST DESIRABLE VANTAGE POINTS—ONE OF THE BRIDGES OVER PARKWAY

## HOW THE RACE WAS RUN AND WON—TABLE SHOWING THE KALEIDOSCOPIIC CHANGES OF POSITIONS

Driver	Lap—	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Grant	11	8	9	9	8	7	7	7	7	3	5	5	6	4	4	2	2	2	1	1	1	1	1
Dawson	4	4	4	3	3	3	3	3	3	2	1	1	1	1	2	1	1	1	3	3	2	2	2
Aitken	10	9	7	7	7	12	14	12	12	9	9	7	6	5	3	3	3	3	2	2	3	3	3
Disbrow	16	11	10	10	9	8	8	8	5	2	2	3	3	3	6	7	6	5	4	4	4	4	4
Mulford	5	5	5	4	4	4	4	4	8	4	4	5	9	9	9	9	6	8	7	7	6	5	5
Fleming	13	7	7	6	6	6	6	6	4	10	10	8	7	7	7	7	5	5	6	5	6	6	6
Mitchell	14	12	13	12	11	9	9	9	11	8	8	9	8	8	8	8	8	10	10	9	8	8	7
Hearne	16	10	11	11	10	10	16	16	17	12	14	10	12	11	11	10	9	8	6	7	7	8	8
Harding	17	14	14	13	12	11	11	11	10	15	16	13	11	10	10	10	9	7	9	8	9	9	9
Dingley	7	6	6	5	5	5	5	5	6	7	7	11	13	13	12	12	13	11	10	10	10	10	10
Stillman	20	17	17	18	17	16	15	14	13	11	11	14	14	14	14	14	13	12	12	12	11	11	10
Brown	9	22	21	20	19	17	19	18	18	14	15	12	10	12	13	11	11	13	11	12	12	12	12
Livingston	12	23	23	24	25	23	21	20	19	16	17	16	16	15	15	14	14	14	13	13	13	13	13
Jones	18	16	15	15	14	13	12	21	20	17	18	17	17	16	16	15	15	15	14	14			
Beardsley	22	19	18	17	15	14	10	10	9	6	6	4	5	6	5	4	4	4					
Hanshue	23	25	25	25	26	24	23	23	22	19	20	18	19	18	19	17	16	16					
Wishart	6	21	19	21	20	18	17	15	14	18	19	19	18	17	17	16	17						
Limberg	19	18	16	16	16	15	13	13	16	12	13	15	15	19	18	18	18						
L. Chevrolet	1	1	1	1	1	1	1	1	7	3	3	2	2	1	4								
Schiefler	26	26	26	26	27	26	25	24	24	21	22	21	21	20									
Harroun	25	24	24	22	22	20	20	19	23	20	21	20	20										
De Hymel	21	15	12	7	21	19	18	17	15	13	12												
Burman	3	2	2	2	2	2	2	2	1														
Matson	15	14	22	23	24	22	22	22	21														
A. Chevrolet	3	20	20	19	18	25	24																
Wallace	8	8	8	8	23	21																	
Heim	16	13	14	14	13																		
Belcher	2	3	3																				
Jardine	24																						



LOOKING TOWARD GRAND STAND AN HOUR AFTER THE RACE WAS OVER

When the curtain of night lifted and the great army of moving objects, each marked by two huge bullseyes, had settled into place and assumed the forms of automobiles—when the ghostly spectres which dotted the Hempstead Plains were discovered to be tents, and when the early comers had awakened and disposed of a quick coffee and quicker sandwich or doughnut—when day broke the sixth Vanderbilt was ready for its running. "Society" folk and near-Society folk who are supposed to fill the boxes in the grand stand had not yet filled them; they came late and even then there were boxes to spare. But the tiers of hard \$5 per seat benches in the rear of the boxes soon were comfortably occupied, although there, too, there was elbow room.

The Clara De Veres and Montgomery Montmorencys were present, of course; also some others who at a distance of a mile and a quarter easily might be mistaken for a De Vere or a Montmorency. Clara wore the very latest style of inverted flower pot, but it was too warm for her to display her furs. "Monty," he wore

"just clothes," and nothing that he might have worn could have excited more remark than the coat of "Willie K." He's the young man who gave the big silver mug for which the racers raced and who always acts as its referee. Vanderbilt looked scarcely a day older or a pound heavier than when first he played the part in 1904. But he wore a new suit of clothes. It was his motoring toggery, attire or apparel—choose your own word. It was of grey; jacket, Norfolk style; breeches, baggy equestrian pattern with cuffs buttoned at the knees; leggins, tan leather. Nowadays leggins are the mark of the professional chauffeurs—but no matter! It was the shoulders of "Willie K.'s" jacket that caused the wonder and remark. On each was a broad patch or pad of grey suede.

As it is not believed that any member of the Vanderbilt family has grown so poor as to wear patched clothing or that "Willie K." in particular has engaged, even playfully, in the hod-carrying profession, the reason for his shoulder pads was not apparent and remains a mystery of the 1910 race.

His chief deputy, so far as the Motor Parkway is concerned, and the "real works" of the Vanderbilt cup race, A. R. Partington, was in frequent conference with the referee, but his sartorial appointments were in no wise out of the usual. It goes without saying, however, that Mr. Frederic Wagner, who "starts things," Vanderbilt cup races among them, wore his "Vanderbilt pants." No race would be complete without those plaid knickerbockers. Wagner wore leggins and a coat, of course, but, oh! those pants—those Vanderbilt pants!

The same shafts of light that rendered these things easily distinguishable also disclosed the cup contenders lined up in two rows, the odd numbers on one side, the even numbers on the other. The morning mist so prevalent on Long Island was absent and the sky was slightly overcast, and ten minutes before 6 o'clock, the hour set for the start, a gentle sprinkle fell; a brisker shower descended after the last car had been despatched, but it, too, was of short duration. The sun then came out and with his cheerful beams chased the clouds away.

## The Start of the Race and Its Spectacular Running and Finish

The competitors were given the word at 15 seconds intervals, the Wagner "Go!" being accompanied by the Wagner slap on the back, after Referee Vanderbilt had been careful that the tire of no car should protrude even one one-hundredth of an inch over the starting wire. With his own hands he helped push back several such offenders. The contenders were despatched in the following order:

No.	Car.	Driver.
1—	National.....	Al. Livingston
2—	Lozier.....	Ralph Mulford
3—	Marquette-Buick.....	Arthur Chevrolet
4—	Mercedes.....	Spencer E. Wishart
5—	Simplex.....	Ralph Beardsley
6—	Benz.....	E. A. Hearne
7—	Benz.....	Franz Heim
8—	Amplex.....	Walter Jones
9—	National.....	John Aitken
10—	Simplex.....	Leland Mitchell
11—	Columbia.....	Harold Stone
12—	Corbin.....	Joe Matson
13—	Stoddard-Dayton.....	Hugh Harding
14—	Benz.....	D. Bruce Brown
15—	Pope-Hartford.....	Jack Fleming
16—	Alco.....	Harry F. Grant
17—	Jackson.....	Ernest Schiefler
18—	Oldsmobile.....	Harry B. Stillman
19—	Marmon.....	Ray Harroun
20—	Pope-Hartford.....	Bert Dingley
21—	American.....	William Wallace
22—	Stoddard-Dayton.....	Tobin De Hymel
23—	Marmon.....	Joseph Dawson
24—	Haupt-Rockwell.....	Carl N. Limberg
25—	Marquette-Buick.....	Robert Burman
26—	Apperson.....	Harris Hanshue
27—	Marquette-Buick.....	Louis Chevrolet
28—	Royal.....	P. Harry Jardine
29—	National.....	Louis Dishrow
30—	Knox.....	Fred Belcher

The only non-starter was No. 5, Joe Nelson, whose Oldsmobile struck a stump en route to the tape and broke an oil pump and punctured its oil pan.

The getaway was without special inci-

dent. It took two men and a stout rope attached to the starting crank to "wind up" Arthur Chevrolet's Marquette-Buick, but he got away with a roar and a rush. His brother, Louis, also in a hyphenated Buick, was the only man to suffer delay. Just after crossing the wire his engine stalled. To the accompaniment of a round oath, Chevrolet's ill-fated mechanic, Miller, leaped out and re-cranked the car. He did it in a jiffy, but the delay cost 15 seconds, Chevrolet finally getting away abreast of Jardine (Royal Tourist)—a post entry—who received the word after him. Practically everyone jumped away. The only slow starters were Fleming (Pope-Hartford) and Limberg (Haupt-Rockwell). It was difficult to distinguish just how Stillman (Oldsmobile) got off. When "Go!" was shouted in his ear he gave his engine such a charge of oil that it spouted great billows of dense smoke that completely hid him from view and blotted out the entire scene. It suggested an oil well afire. It is rare indeed that a car exhausts such volumes of smoke. It was a sight worth seeing.

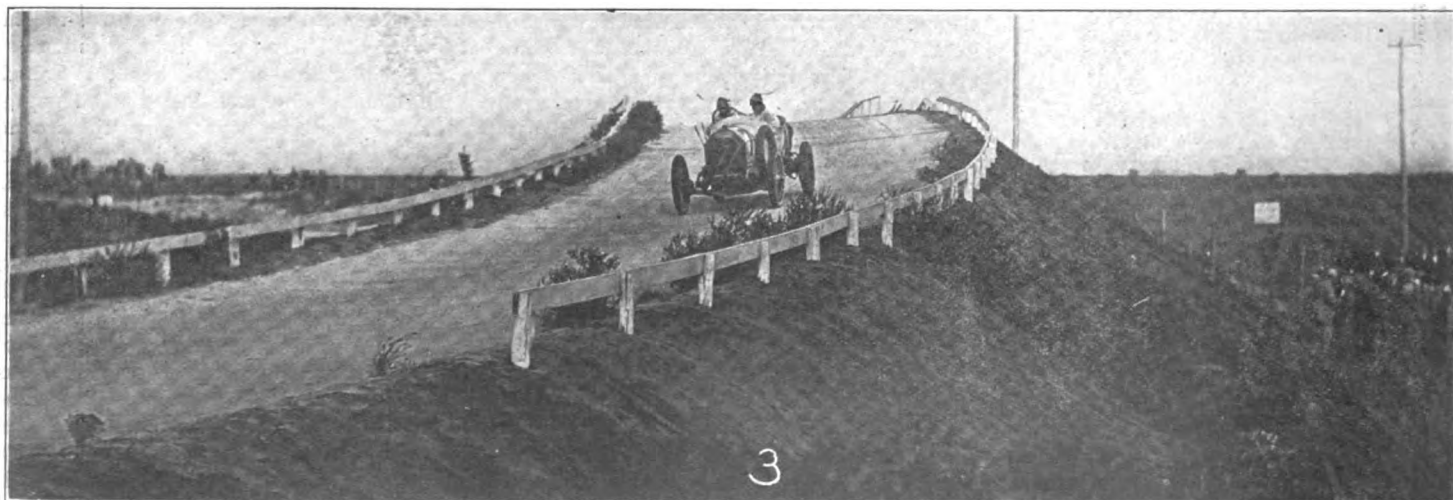
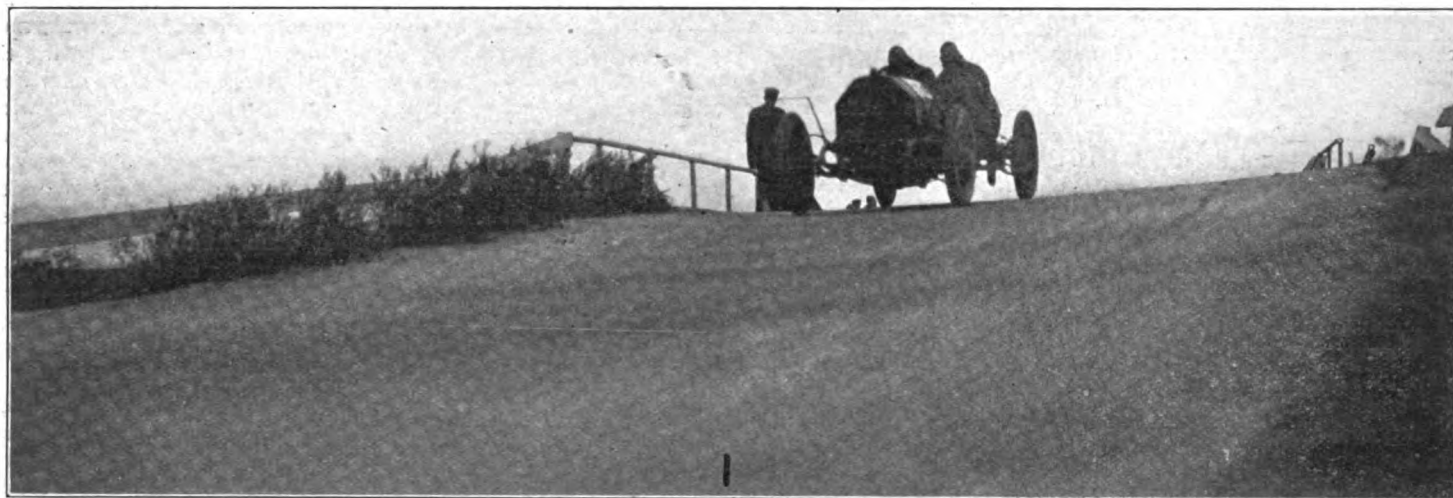
With the great pack in full cry, it seemed no time at all before the red flags of the signalmen went up in quick succession and the sound of the bugle atop the press stand aroused the old familiar cry "Car Coming!" Anyone with a field glass and knowledge of the "lay of the land" did not require either flag or bugle to inform him of the fact. From the west end of the grand stand or press stand or other elevation there is to be had as spectacular a view of the race as ever can be obtained of such a contest. All of a mile away, and

with the naked eye, the cars, looking like tiny automatic toys, can be seen suddenly to pop over the crown of one of the overhead bridges on the Parkway, dart down the grade, disappear for a moment around a curve, then like fleeting shadows they seem to dart across the field, and, growing larger every moment, they turn into the long straight homestretch and thunder past. The view is one that would justify the Parkway management in so perching extra-reserved seats—and charging for them—that advantage may be more generally taken of the unusual spectacle.

The first car that hove in sight was not the first one that had been sent away. Livingston's National had been passed by Mulford's Lozier, while Arthur Chevrolet's Buick darted by within sight of the crowd. They had started 1, 2, 3, and though Chevrolet had gained on Mulford, the latter was hailed as the leader and re-acclaimed on the next lap when the Frenchman had trouble and lost his advantage. None of the score boards gave the seconds—not even the new one with movable number plates; they merely recorded the minutes and the crowd thus was none too wise. If the hopes of Mulford's adherents were raised they were false hopes; for though he remained in front it was because he was an early starter. Behind him were men in cars that were moving faster. Most of them, like Mulford, were ripping off laps of 12.64 miles in less than 12 minutes. One of them, Louis Chevrolet, the same who had lost 15 seconds in starting, had turned the first lap in less than 11 minutes, and another, Belcher, in the Knox, had flashed around in 11 minutes flat. They

## THE MOTOR WORLD

THE OVERS AND UNDERS OF THE PARKWAY—THE BRIDGES NEAR MEADOWBROOK



1. OVER—GRANT (ALCO) LEAPING THE SKYLINE AT ONE OF THE BRIDGES
2. UNDER—STILLMAN (OLDSMOBILE) PROVING THE ADAGE OF THE STERN CHASE
3. AND OVER—HEARNE (BENZ) CROSSING THE BRIDGE WHERE STONE CAME TO GRIEF

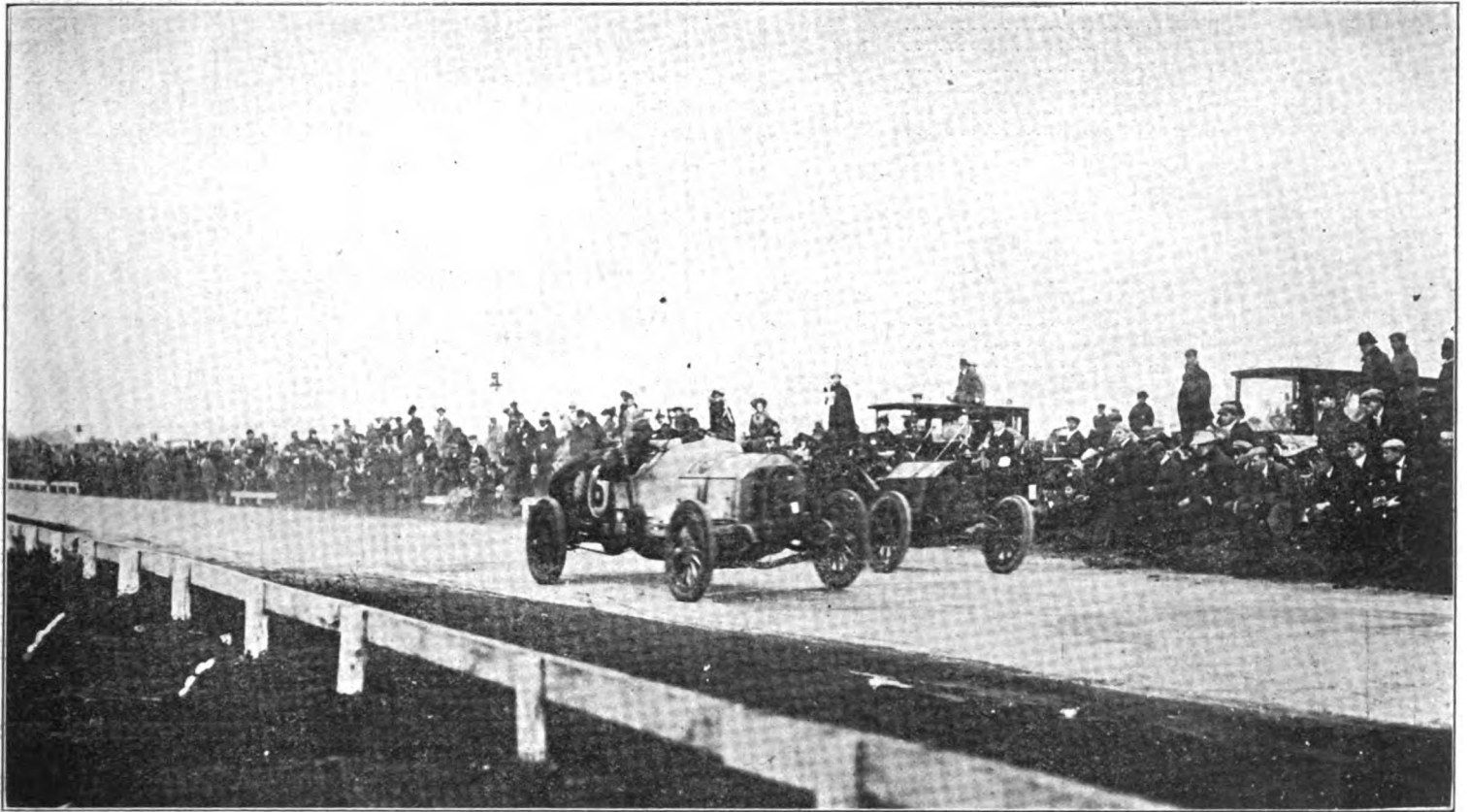
then were first and second in point of time. Burman (Buick) and Dawson (Marmon) were third and fourth, respectively.

When the crowd awoke to the apparent paradox that the first man was not the leader, it was because the stupendous pace and the battle roar of the Marquette-Buicks compelled the awakening. Their going was positively wicked, and the reckless dash and abandon of their drivers, Burman and the Chevrolets, was a sight to make eyes bulge. It appeared as if they would run away from their rivals and that the race was between them. There were those,

did not emit such a gloriously impressive roar or seem to split the air with such a whack. But it was splitting it just the same. Belcher was the first of the rockets to descend. He improved on even his first fast lap, and when in third position on his fourth lap his Knox suffered two broken exhaust valves and that was the end of him. Arthur Chevrolet was the next of the first fliers whose stick returned to earth. He evidently knew what was coming. Once he secured a spare chain at his repair pit and then dropped it in the road a few yards beyond. He had trouble on

glory of the Buick standard. He maintained it for just one lap. A broken chain and an engine that rebelled at its fearful work laid him low on the tenth round and his weary motor found its rest. It was then that Dawson first made the crowd take real notice of his Marmon.

With Burman out and Louis Chevrolet now engaged in a stern chase, Dawson was in command. He was more than four minutes "to the good," and Louis Disbrow (National), little noticed and little fancied, was in second place. Chevrolet, going great guns and driving with even more



DAWSON (MARMON) OVERTAKING BRUCE-BROWN (BENZ) NEAR THE GRAND STAND

however, who were not deceived by appearances.

It was the bulkiest Vanderbilt that was ever run. There was something doing all the while. The bugler was kept busy. The field was so big that there were cars passing or in sight nearly all the time. Some thundered; some flew lightly by. And as happened many times, when two cars came down the stretch abreast, occasionally with hubs almost touching, it was a sight to make the pulse beat faster. Their speed was terrific and their front wheels fairly danced on the cement surface, as each strained for the mastery. The changes of position were so frequent and so hard to follow that until toward the end of the race few knew "who was where." All knew that the Marquette-Buick trio was leading the others a merry pace and not many realized that Dawson at all times was so closely at their heels, so to speak. His Marmon

the seventh lap and on the eighth his chain and radius rod broke and he was heard of no more. A Motor World man saw him lying beside his car at the roadside near Westbury, and if he was not weeping he certainly looked it.

Louis Chevrolet, however, remained to uphold "the honor of the family." Long before, he had scored the fastest lap, 10:12, and left his brother far behind and indeed everyone else. Could he but maintain his awful speed the silver cup was his so easily that it would be "like taking candy from a kid." On the eighth lap (101.12 miles) he was nearly three minutes ahead of the next best man, and the next man was Burman—and Burman also drove a roaring Buick. On the very next round Chevrolet began to flicker. He suffered a "bad time" and lost the lead. The cynics smiled knowingly. But Burman was right there to take up the leading and maintain the

reckless abandon, was third and gaining fast in his effort to make up lost time. He overtook Disbrow on the next—the eleventh—lap, but Dawson was possessed of speedier stuff. The Frenchman gained on him slowly but surely, and after a chase of 50 miles he wore down Dawson's lead and on the fourteenth lap was again in front. But his was the pace that kills. On the fifteenth round he had another bad spell, and Dawson regained the premier position, while Chevrolet went from bad to worse. On the sixteenth lap his end came tragically. Near Hicksville his steering gear went wrong and his car bounded off the road, charged into and upset a touring car filled with spectators, broke down three trees in its path, and then turned over. Chevrolet was thrown clear of the wreck and escaped with minor hurts, but Miller, his mechanic, was killed instantly. News of the accident was slow in reaching



## Summary of Three Races on the Long Island Motor Park

## VANDERBILT CUP RACE—FOR CARS OF 30

Driver and Car.	Bore	Stroke	Displacement	1	2	3	4	5	6	7	8	9	10
1—Harry F. Grant, Alco.....	4 3/8	5 1/2	579.9	11:33	22:49	34:03	45:18	56:32	67:44	79:02	90:19	101:36	112:53
2—Joe Dawson, Marmon.....	4 1/2	5	318.	11:12	21:58	32:48	43:42	54:52	65:43	76:36	87:29	98:22	109:15
3—John Aitken, National.....	5	5 11-16	446.7	11:31	22:35	33:39	44:52	56:04	67:16	78:27	89:39	100:51	112:03
4—Louis A. Disbrow, National.....	5	5 11-16	446.7	11:51	23:06	34:13	45:35	56:48	68:04	79:16	90:28	101:40	112:52
5—Ralph Mulford, Lozier.....	5 3/8	6	544.5	11:14	22:08	33:04	44:04	55:05	66:07	77:05	88:04	99:03	110:02
6—Jack Fleming, Pope-Hartford.....	4 3/4	5 1/2	389.9	11:35	22:32	33:39	44:46	55:51	66:55	78:00	89:05	100:10	111:15
7—Leland A. Mitchell, Simplex.....	5 3/4	5 3/4	597.2	11:46	23:19	34:41	46:07	57:24	68:41	79:57	91:14	102:31	113:48
8—Edward A. Hearne, Benz.....	4 15-16	5 7/8	448.	11:51	23:05	34:22	45:44	57:06	68:44	80:15	91:53	103:31	115:09
9—Hugh N. Harding, Stoddard-Dayton.....	5 1/4	5 3/4	497.8	11:54	23:26	34:51	46:19	57:46	69:08	80:32	91:55	103:18	114:41
10—Bert Dingley, Pope-Hartford.....	4 3/4	5 1/2	389.9	11:27	22:28	33:26	44:26	55:32	66:34	77:40	88:46	99:52	110:58
11—Harry Stillman, Oldsmobile.....	5	6	471.2	12:37	24:46	36:51	49:11	61:08	73:13	85:04	97:00	108:56	120:52
12—David Bruce Brown, Benz.....	4 15-16	5 7/8	448.	11:29	29:43	40:53	51:59	63:08	74:12	85:00	96:00	107:00	118:00
13—Al Livingston, National.....	5	5 11-16	446.7	11:34	37:01	50:39	77:10	88:20	99:23	110:24	121:25	132:26	143:27
14—Walter Jones, Amplex.....	5 1-16	5	402.5	12:13	23:51	35:25	47:07	58:48	70:32	82:16	94:00	105:44	117:28
15—Ralph E. Beardsley, Simplex.....	5 3/4	5 3/4	597.2	14:20	25:37	36:53	48:22	58:49	71:09	82:25	93:41	104:57	116:13
16—Harris M. Hanshue, Apperson.....	5 3/4	5 3/4	597.2	16:32	57:02	74:40	86:33	98:33	110:37	122:52	134:56	147:01	159:05
17—Spencer E. Wishart, Mercedes.....	5 1/2	6	572.5	11:22	27:58	39:09	55:10	66:03	77:07	88:09	99:11	110:13	121:15
18—Carl Limberg, Houghton-Rockwell.....	5 1/2	6	570.	12:15	24:04	35:43	47:29	59:07	71:34	83:18	95:02	106:46	118:30
19—Louis Chevrolet, Marquette-Buick.....	6	5 1/4	593.7	10:46	21:01	31:13	41:46	52:07	62:40	73:11	83:42	94:13	104:44
20—Ray Harroun, Marmon.....	4 1/2	6 1/2	413.5	102:09	115:22	128:03	140:23	152:37	164:53	177:12	189:28	201:44	213:59
21—E. F. Schiefler, Jackson.....	4 7/8	4 3/4	354.7	35:27	46:21	57:00	67:38	78:20	89:05	99:58	110:51	121:44	132:37
22—Tobin De Hymel, Stoddard-Dayton.....	5 1/4	5 3/4	497.8	12:45	23:37	34:26	45:16	56:05	66:55	77:44	88:33	99:22	110:11
23—Robert Burman, Marquette-Buick.....	6	5 1/4	593.7	11:03	21:39	32:09	42:37	53:00	63:40	74:11	84:42	95:13	105:44
24—Joe Matson, Corbin.....	4 1/2	4 1/4	405.6	11:48	23:36	48:30	74:32	86:52	98:57	110:42	122:27	134:12	145:57
25—Arthur Chevrolet, Marquette-Buick.....	5 3/4	5 3/4	597.2	11:03	29:35	40:24	50:54	61:34	72:14	82:54	93:34	104:14	114:54
26—W. Wallace, American.....	5 3/4	5 1/2	571.9	11:28	22:34	33:42	45:08	56:02	67:04	78:04	89:04	100:04	111:04
27—Franz Heim, Benz.....	4 15-16	5 7/8	448.	11:51	23:25	34:51	46:25	58:02	69:34	81:06	92:38	104:10	115:42
28—Fred Belcher, Knox.....	5	4 7/8	572.	11:00	21:45	32:33	43:21	54:09	64:57	75:45	86:33	97:21	108:09
29—P. H. Jardine, Royal Tourist.....				23:34	Engine trouble								
30—Harold Stone, Columbia.....	4 7/8	5 1/2	410.6		Ran off track								

\*Running when race was called

## WHEATLEY HILLS SWEEPSTAKES—FOR CARS

Driver and Car.	Bore	Stroke	Displacement	1	2	3
1—J. F. Gelnow, Fal.....	4 1/8	5 1/4	280.6	13:24	26:40	39:48
2—W. H. Pearce, Fal.....	4 1/8	5 1/4	280.6	12:34	24:53	37:21
Fred Heineman, Marmon.....	4 1/2	4 1/2	286	12:01	23:48	35:33
E. H. Sherwood, Mercer.....	4 3/8	5	300	19:15	32:31	45:58
John Juhasz, S. P. O.....	3 7/8	5 1/8	241.7	14:11	28:03	41:49
Marcel Basle, Marion.....	4 1/4	4 1/2	255	15:53	31:28	45:58
Alvin Maisonville, Corbin.....	4 1/2	4 1/4	270.4	12:04	Engine trouble	
H. T. Frey, Mercer.....	4 3/8	5	300	12:49	Ran into telegraph pole	

\*Running when race was called

## MASSAPEQUA SWEEPSTAKES—FOR CARS OF 30

Driver and Car.	Bore	Stroke	Displacement	1	2	3
1—William Endicott, Cole.....	4	4	201	14:06	27:38	41:07
2—Mortimer Roberts, Abbott-Detroit.....	4	4 1/4	213.6	14:12	28:02	44:16
3—Louis Edmunds, Cole.....	4	4	201	15:22	29:52	44:39
William Knipper, Lancia.....	3 15-16	4 5-16	210.8	12:35	24:45	36:49
V. Padula, Abbott-Detroit.....	4	4 1/4	213.6		Hit telegraph pole	



REFEREE VANDERBILT AT EASE

the grand stand, and the anxiety of the men in the Buick repair pit as they strained their eyes long and longingly for the last of their heroes who came not constituted a picture that must have been amusing were it not so real and so earnest.

And while all these things were happening, a man with cheerful face and clear head

behind the steering wheel of an Alco car had been "going some" himself, though he refused to rival the rockets. He was Grant, driving a heady, careful and consistent race. He knew his pace and held it. He was in ninth place on the third lap when the fireworks were whizzing fiercely, and gradually he worked forward as they flickered or sputtered and "died." When Louis Chevrolet went down and out, only Dawson was in front of him—two minutes in front and moving faster than the wind. Grant stopped for oil and fuel on the seventeenth round and Dawson added two minutes more to his advantage, and then a gasoline pipe sprung a leak and he had to stop for repairs. He had stopped once before, on the twelfth round, for fuel and a change of tires, and made a long five min-

utes job of it, and his stop on the eighteenth lap to fix the gasoline pipe was another long one—all of four minutes—which added to time lost on the road due to the leak gave Grant what looked like a safe lead. It did not seem that he could be overtaken. Even John Aitken (National), who also had driven a marvelously consistent race and worked forward almost unnoticed, passed Dawson. But once the leak had been stopped, Dawson returned to his work like a fury. He overhauled Aitken in less than 25 miles and closed on Grant with astonishing rapidity. With two laps to go he had cut down the cup holder's lead to 43 seconds, and a portion of the crowd at least realized that a rare struggle was on, and when Grant stopped to change a tire on the twenty-first round, it seemed



## way October 1, 1910—Compiled from Official Score Sheet

## 600 CUBIC INCHES PISTON DISPLACEMENT.

	9	10	11	12	13	14	15	16	17	18	19	20	21	22
12	113:76	126:40	139:04	151:68	164:32	176:96	189:60	202:24	214:88	227:52	240:16	252:80	264:44	278:08
20	101:50	115:16	126:34	137:58	149:25	160:50	172:09	183:27	196:33	207:57	220:51	232:06	244:36	255:58.64
26	98:15	109:25	121:07	135:23	146:42	158:30	169:45	181:03	192:32	211:54	223:11	234:19	245:19	256:23.51
52	106:17	117:43	129:02	140:32	152:03	163:38	175:03	186:26	198:08	211:21	222:56	234:27	246:03	257:29.74
08	102:18	113:43	125:10	136:32	149:17	160:41	176:28	191:34	203:03	214:43	227:51	241:04	252:27	264:08.28
59	103:25	114:23	125:24	139:23	157:36	168:42	179:46	191:09	206:38	218:02	231:27	242:34	253:38	264:33.59
07	102:12	120:12	131:35	142:58	154:10	165:35	176:52	188:11	201:43	216:42	229:32	241:09	255:04	266:47.37
15	106:11	117:32	128:56	144:20	155:40	167:13	178:41	193:02	208:58	220:22	234:09	245:53	260:12	272:01.09
13	110:54	122:33	134:21	146:09	160:52	172:55	184:37	196:39	208:30	220:08	231:15	243:37	256:41	272:25.27
22	105:45	125:06	136:43	147:56	159:25	171:53	182:15	193:30	204:41	220:09	231:46	247:13	262:00	273:34.30
41	102:32	117:20	128:35	146:10	162:24	176:04	187:27	202:17	215:49	227:03	238:32	252:15	265:17	277:23.12
57	108:45	120:30	132:10	148:47	163:25	179:01	191:12	203:13	215:23	227:20	239:36	253:32	265:36	*
27	111:40	124:21	136:09	147:28	159:08	173:21	189:20	200:59	212:19	227:30	242:15	253:58	267:39	*
45	132:55	144:08	155:34	166:54	178:15	189:30	200:49	212:15	223:57	238:49	250:10	261:30	273:00	*
50	134:26	146:04	158:06	175:41	187:17	204:32	216:15	228:14	239:58	251:50	263:30	275:14	*	
41	105:00	116:19	127:33	138:54	150:19	164:41	176:04	187:27	198:55	213:53	Broke steering gear			
30	155:00	166:53	178:41	190:32	208:05	220:32	232:58	245:21	257:29	269:31	*			
11	110:13	153:45	165:23	193:00	204:19	215:22	226:30	237:36	259:00	Out				
01	110:43	122:33	134:17	156:57	170:24	219:59	231:36	250:13	265:33	Out				
45	103:04	114:11	125:18	136:11	147:14	158:13	175:23	Hit car on roadside						
28	201:40	213:46	225:55	242:15	254:53	267:11	Broke crank shaft							
47	164:23	175:48	186:41	197:43	209:02	Out								
42	110:37	123:04	134:05	Out										
32	97:01	Engine trouble												
37	149:45	Broken water connection												
ke chain and radius rod														
nder														
caught fire														

## F 231-300 CUBIC INCHES PISTON DISPLACEMENT.

4	5	6	7	8	9	10	11	12	13	14	15				
52:53	67:35	79:66	93:48	106:38	118:54	130:59	143:06	155:49	168:49	181:47	194:39.67				
49:51	62:25	75:06	87:41	100:23	113:01	125:37	147:09	161:42	175:37	191:59	205:01.73				
47:16	59:30	71:28	93:18	107:36	122:18	137:10	152:04	166:50	182:34	197:59	*				
59:12	98:56	112:28	125:33	138:45	152:04	203:08	*								
55:12	Engine trouble														
60:51	Carburettor trouble														

ph pole; broke axle

## 61-230 CUBIC INCHES PISTON DISPLACEMENT.

	4	5	6	7	8	9	10
54:40	68:22	81:52	95:10	110:35	124:13	138:04.32	
58:08	72:22	86:20	100:19	114:31	128:53	143:02.12	
58:50	73:22	89:30	103:57	118:35	133:04	147:15.63	
49:06	61:21	73:24	85:32	Turned over			

that the cup must change hands and be removed to Indiana. But the tire change was a lightning fast one. It was but a matter of seconds, and Dawson had not quite closed the gap. Grant's margin of safety was close, but it was just enough to win. Dawson gained 18 seconds on him, but both were going faster than at the start, and, fast as Dawson moved, it was exactly 25 seconds too slow.

As the score boards did not give the seconds, only those who kept tabs on score cards from the megaphoned announcements were aware what a battle had been waged. It was in the press stand and in the trade camps and pits where interest was keyed highest, for had the crowd known how splendid had been the duel between Grant and Dawson and how consistency

had brought Aitken into third place, surely more than feeble and scattered cheers must have rewarded each of them.

When Grant stopped and was informed of his new triumph he asked concerning his time, and when it was told to him, he remarked, quietly:

"That's slower than it was last year, isn't it?"

But it isn't slower; it is the fastest time ever made in a Vanderbilt race.

From the time that the Buick trio began their spectacular flights with Dawson at their heels until the time that Dawson, Disbrow, Aitken and Grant "mixed it" in the closing rounds, much else had occurred. Of the 30 cars that started, one, the Columbia, never was seen again at the starting



STARTER WAGNER, HE SEES 'EM COMING

point. It was on the very first lap that it plunged off the bridge, breaking the legs of Harold Stone, its driver, and hurling his mechanic, Milton Bacon, into eternity. First reports that reached the stands had Stone killed and Bacon injured. For hours this belief prevailed. How the accident occurred is not clear. It was attributed to a burst tire, but a Motor World man who saw the wreck after the race found no evi-

dence of tire failure. Ghoulish youths were there, however, and purloining movable parts of the battered hulk as souvenirs. One of them used a stone to break the magneto; another pried off a piece of the radiator. It seems likely that Stone was the victim of his own daring. The Motor World man stationed at the Westbury turn saw no driver who took the dangerous angle at more reckless speed than Stone; he seemed to think not of consequences, and when he rounded into the straight road his car zigzagged from side to side for several rods before it ran true. Its action suggested that the steering gear had been wrenched. It was only a mile beyond that the accident occurred.

One round was enough for Jardine, the Royal Tourist's post entry. He stopped at the pits because of tire and engine trouble, and it was too great to be overcome. There was lots of "action" and interest at these pits, too, and it was there that the race was won and lost. There were some lightning changes of tires and refillings of tanks and performing of repair jobs, and there were others that were distressingly slow. It was slow work at the pits that undid Dawson, who himself dismounted from his car as if he had all day before him. It was quick work that helped Grant. It was inexperience and

#### Average Speeds in the Cup Race.

Driver and Car	Ave. Miles Per Hour	Ave. Time Per Mile
Grant, Alco	65.18	55.18
Dawson, Marmon	65.02	55.37
Aitken, National	64.30	55.98
Disbrow, National	63.18	56.98
Mulford, Lozier	63.07	57.12
Fleming, Pope-Hartford	62.54	57.58
Mitchell, Simplex	61.33	58.70
Hearne, Benz	61.25	58.77
Harding, Stod.-Dayton	60.99	59.05
Dingley, Pope-Hartford	60.14	59.85

newcomers at the pits that delayed Dingley and Fleming and their Pope-Hartfords. Once both cars stopped at the same time for spare tires—they stopped for nothing else—and Fleming's were not ready for him; he took chances and went on without them; and when tire changes were made, the Pope-Hartford pit crew used small jacks where the more experienced used large ones. Hanshue and his Apperson and Schieffler and his Jackson spent the longest periods at the pits. Hanshue was the victim of his own folly, or someone's persuasiveness. He had been induced to try a new carburetter; after one lap it struck work and he spent nearly half an hour replacing the old one. Schieffler was the victim of downright hard luck. On the very first round the radius rod bracket of his Jackson broke—a most unusual mishap—and for more than an hour he and his mechanic labored at the repair. Finally they succeeded, and although hopelessly out of the race, went on and gave a demonstration of consistent running by

#### CONTESTANTS' TIMES BY LAPS—THE VANDERBILT CUP RACE.

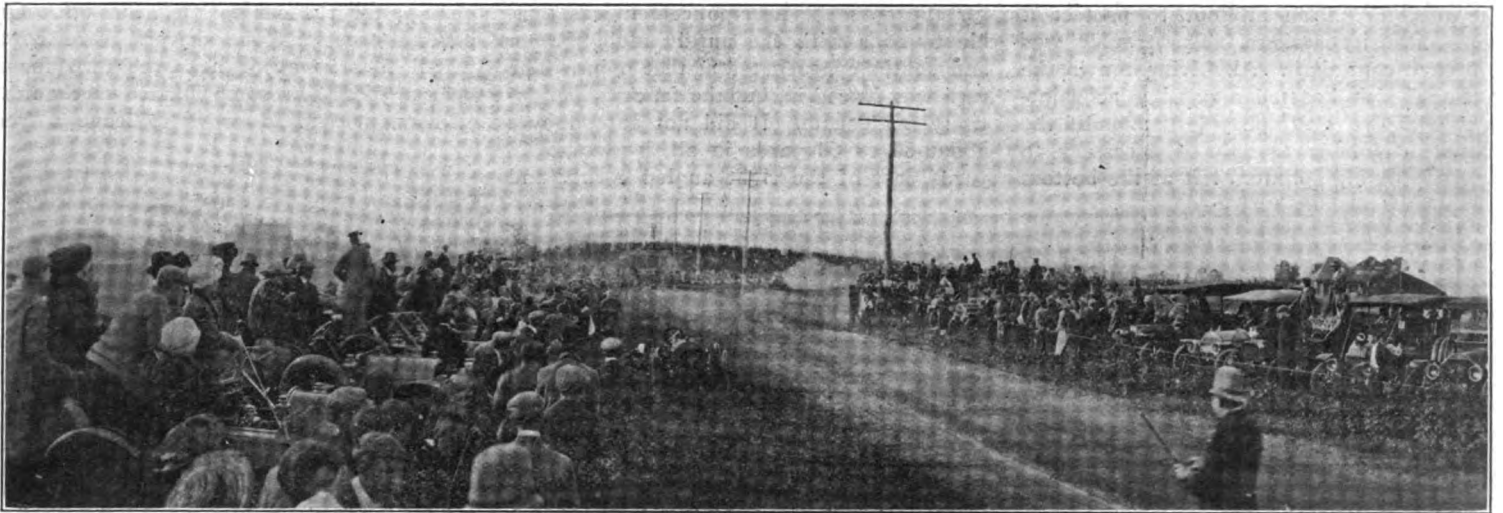
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1—Grant	11:33	11:16	11:14	11:15	11:14	11:12	11:18	11:18	11:28	13:26	11:18	13:24	11:27	11:25	11:19	11:18	13:06	11:24	12:54	11:15	12:30	11:22
2—Dawson	11:12	10:46	10:50	10:54	11:10	10:51	10:53	10:50	10:51	11:10	10:52	15:06	11:19	11:48	11:15	11:18	11:29	19:22	11:17	11:08	11:00	11:04
3—Aitken	11:31	11:04	11:07	11:04	11:12	12:10	13:33	11:25	11:25	11:26	11:19	11:30	11:31	11:33	11:35	11:23	11:42	13:13	11:35	10:31	11:36	11:26
4—Disbrow	11:51	11:15	11:07	11:22	11:13	11:16	11:14	11:52	11:10	11:25	11:27	12:45	11:24	15:47	15:06	11:23	15:29	11:40	13:07	13:13	11:23	11:31
5—Mulford	11:14	10:54	10:56	11:00	11:01	11:02	10:58	10:54	15:26	10:58	11:01	13:59	18:13	11:06	11:04	11:23	15:29	11:24	13:25	11:07	11:04	10:55
6—Fleming	11:35	10:57	11:07	11:07	11:05	11:04	11:05	11:16	11:18	14:57	11:21	15:24	11:20	11:33	11:27	14:21	15:56	11:24	13:47	11:44	14:19	11:49
7—Mitchell	11:46	11:33	11:22	11:26	11:17	11:17	11:16	11:18	14:57	11:21	15:24	11:20	11:33	11:27	14:21	15:56	11:24	13:47	11:44	14:19	11:49	
8—Hearne	11:51	11:14	11:17	11:22	11:22	11:38	18:31	11:58	11:41	11:39	11:48	11:48	14:43	12:03	11:42	12:02	11:51	11:38	11:07	12:23	13:04	15:44
9—Harding	11:54	11:32	11:27	11:28	11:27	11:22	13:54	11:20	11:23	19:21	11:37	11:13	11:29	11:28	11:15	11:11	15:28	11:37	15:27	14:47	11:34	
10—Dingley	11:27	11:01	10:58	11:00	11:06	11:02	11:06	11:01	13:51	14:48	11:15	17:35	16:14	13:40	11:23	14:50	13:32	11:14	11:29	13:43	13:02	12:06
11—Stillman	12:37	12:09	12:05	12:20	11:57	12:05	11:51	11:53	11:48	11:45	11:40	16:37	14:38	15:36	12:11	12:01	12:10	11:57	12:16	13:56	12:04	
12—Brown	11:29	18:15	11:10	11:06	11:09	11:04	14:48	11:27	11:13	12:41	11:48	11:19	11:40	14:13	15:59	11:39	11:20	11:11	18:45	11:43	13:41	
13—Livingston	11:34	26:27	13:38	26:31	11:10	11:03	11:01	11:23	11:10	11:13	11:26	11:20	11:21	11:15	11:19	11:26	11:42	14:52	11:22	11:20	11:30	
14—Jones	12:13	11:38	11:34	11:42	11:41	11:44	11:44	10:34	11:36	11:38	12:02	17:35	11:36	17:15	11:43	11:59	11:34	11:52	11:40	11:44		
15—Beardsley	14:20	11:17	11:16	11:29	10:27	12:20	11:16	11:16	11:19	11:19	11:14	11:21	11:25	14:22	11:23	12:28	14:58					
16—Hanshue	16:32	40:29	17:39	11:53	12:00	12:04	12:15	19:38	12:30	11:53	11:48	11:51	17:33	12:27	12:26	12:23	12:08					
17—Wishart	11:22	16:36	11:11	16:01	10:53	11:04	11:02	11:02	43:32	11:38	27:37	11:19	11:03	11:08	11:08	11:24						
18—Limberg	12:15	11:49	11:39	11:46	11:38	12:27	11:44	11:43	15:32	11:50	11:44	12:40	13:27	12:35	11:37	17:37	15:20					
19—Chevrolet, L.	10:46	10:15	10:12	10:33	10:21	10:33	10:31	10:34	19:19	11:07	11:07	12:06	12:09	16:20	12:38	12:18						
20—Schieffler	10:29	13:13	12:41	12:14	12:14	12:16	12:19	12:16	12:12	12:06	12:07	16:20	12:38	12:18								
21—Harroun	35:27	10:54	10:39	10:38	10:42	10:45	10:53	16:49	47:36	11:25	10:53	11:02	11:21									
22—De Hymel	12:45	10:52	10:49	10:50	11:39	11:09	10:48	10:50	10:55	12:27	11:01											
23—Burman	11:03	10:36	10:30	10:28	10:23	10:40	12:11	10:41	10:29													
24—Matson	11:48	11:48	14:54	16:02	12:20	12:05	10:45	17:55	12:08													
25—Chevrolet, A.	11:03	18:32	10:49	10:30	10:40	54:25	14:02															
26—Wallace	11:28	11:06	11:08	11:26	38:54	14:02																
27—Heim	11:51	11:34	11:26	11:34	11:27																	
28—Belcher	11:00	10:45	10:48																			
29—Jardine	23:34																					

#### TIMES BY LAPS—THE WHEATLEY HILLS SWEEPSTAKES.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1—Gelnaw	13:24	13:16	13:08	13:05	14:42	12:11	14:02	12:50	12:16	12:05	12:07	12:43	13:00	12:58	12:42							
2—Pearce	12:34	12:19	12:28	12:30	12:34	12:41	12:35	12:42	12:38	12:36	21:32	14:33	13:55	16:22	13:02							
3—Heineman	12:01	11:47	11:45	11:43	12:14	11:58	11:50	14:18	14:42	14:52	14:56	14:46	15:44	15:25								
4—Sherwood	19:15	13:16	13:27	13:14	12:34	13:32	13:05	13:10	13:19	51:04												
5—Juhasz	14:11	13:52	13:46	13:23																		
6—Basle	15:53	15:35	29:23																			
7—Maisonville	12:04																					
8—Frey	12:49																					

#### TIMES BY LAPS—THE MASSAPEQUA SWEEPSTAKES.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1—Endicott	14:06	13:32	13:29	13:33	13:42	13:30	13:18	15:25	13:38	13:51												
2—Roberts	14:12	13:50	16:14	13:52	14:14	13:58	13:59	14:12	14:22	14:09												
3—Edmunds	15:22	14:30	14:47	14:11	14:32	16:08	14:27	14:38	14:29	14:11												
4—Knipper	12:35	12:10	12:04	12:17	12:15	12:03	12:08															



THE MASSAPEQUA TURN, SHOWING ONE OF THE WHEATLEY HILLS CARS HALTED AT ROADSIDE

repeating lap after lap in approximately the same time.

There were many stops at the pits and the officials were very much alive to their duties. They kept close watch that the men in the pits did not do more than handle tires and replenishments. Two or three

excited or over-anxious repairmen who leaped out, tools in hand, to assist in mechanical repairs were unceremoniously fired back into their pits. Once, too, in the case of Limberg and the Houpt-Rockwell, the officials demonstrated their keenness. Limberg's brakes were suspected and, tests

proving them weak, he was required to make them good even at the expense of much precious time.

Franz Heim, Benz, was one of the three who made no stops at the pits. His gasoline line broke and his German car caught fire and was rendered hors de combat.

## At the Turns Where Cars Skidded and Spectators Tempted Fate

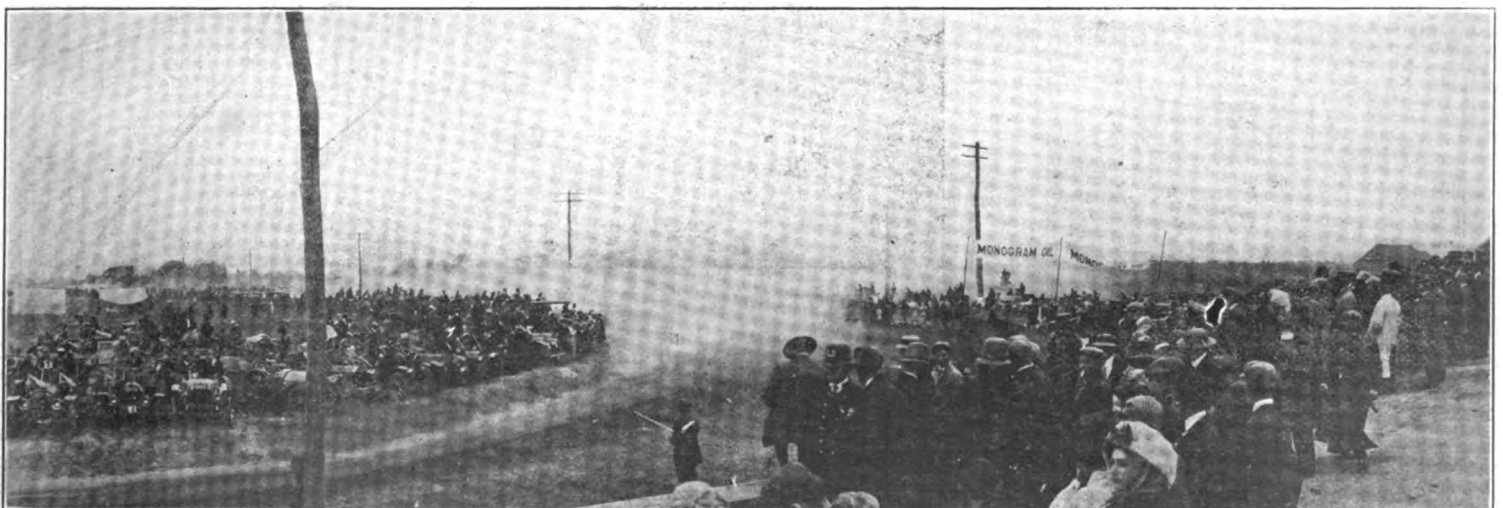
Hicksville was one of the points on the course that promised doings. There's a bend in the road there and as soft as it speedily became in the Vanderbilt race of 1909, it was not a marker to its condition this year after the first few laps had been run. The stretches in each direction, too, never before seemed so lumpy. The road leading north at the junction is always fenced across during the race hours, and while no such banking had been attempted there as in previous years, the surface had nevertheless been somewhat built up with macadam. The cars speedily cut into the cracked stone as if it were corn meal, with the result that it soon lay in long ridges. Those ridges were the cause of putting the Mercer, No. 47, out of commission, C. H.

Frey, the driver, and C. M. Kittrell, the mechanic, barely escaping with their lives when it struck a telegraph pole just beyond. The Mercer upon reaching the soft spot skidded, causing the right rear tire to explode. Within two seconds the car had made a lunge into the crowd of observers and would doubtless have killed someone but for the telegraph pole behind which the group dodged. There was a resounding whack and the splinters flew in every direction.

The fore right wheel was carried away except its hub, the radiator was jammed out of shape, and half of the steering wheel was carried away. Spectators involuntarily turned their heads expecting to see both men pitched headlong against the pole.

They got out of the wreckage instantaneously, however, and asked for help to draw the debris out of the path of on-coming cars. Later both men found their hands cut in several places, but it seems likely the cutting was done in pushing and handling the car after the collision. The two men perched themselves on guard over the wreck and remained there until the contest was finished, otherwise the car would have been carried off piecemeal by souvenir hunters, as was the case with the ill-fated Columbia car on the opposite side of the course.

Within a quarter of a mile of the Mercer to the westward was laid up the disabled Royal Tourist, No. 30, with Driver P. H. Jardine and his assistant sprawling over



ANOTHER VIEW OF THE MASSAPEQUA TURN, WHERE THERE WAS SOME FEARFUL SKIDDING

the machine in an attempt to protect it from curiosity seekers. The trouble was a broken cam shaft. Al. Livingston in the National also boasted a passing acquaintance with the telegraph pole that undid the Mercer. Nobody thought it necessary to tear off the big splinters left at the bottom

for the score of near-policemen was unable to cope with the unruly mob of men and youths congregated at that point. The turn was fenced in, but the fencing was entirely inadequate. It did not extend over about 50 or 60 yards in all, beginning 20 yards east of the right angled corner and

enough for the car to rush through. On several occasions the drivers were compelled to stop at or near the turn for a change of tire or some hurried mechanical adjustment, and in order to leave a free



HARROUN ROUNDING HICKSVILLE TURN; WRECKED MERCER AT ROADSIDE

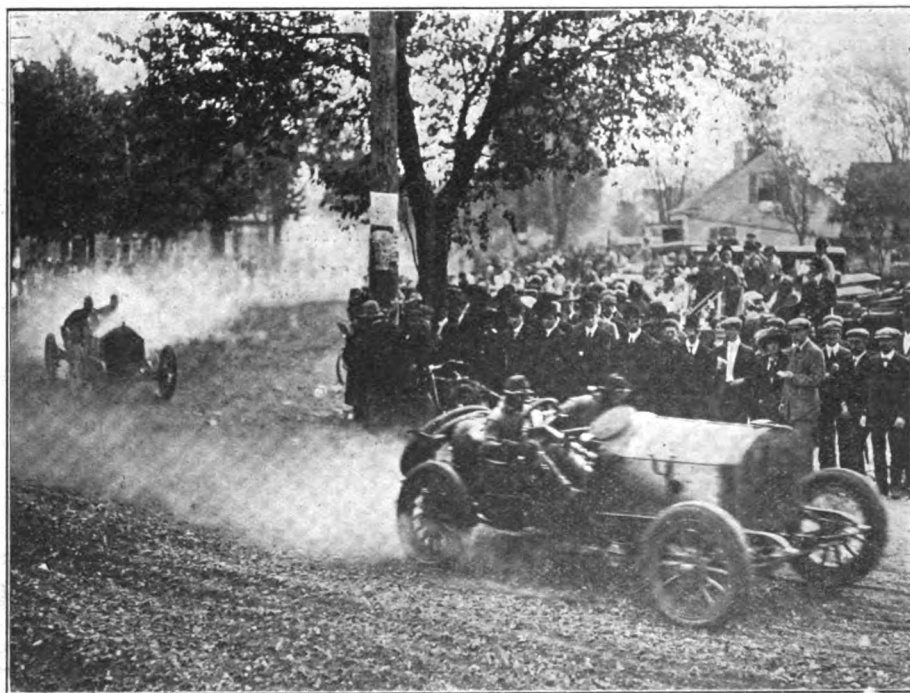
of the pole by the collision, although they projected several inches. Livingston's fore wheel soon caught one of the splinters and sent it flying over the heads of the



THE REFEREE AND TWO JUDGES

crowd. After that the policemen got busy with the balance of the wreckage.

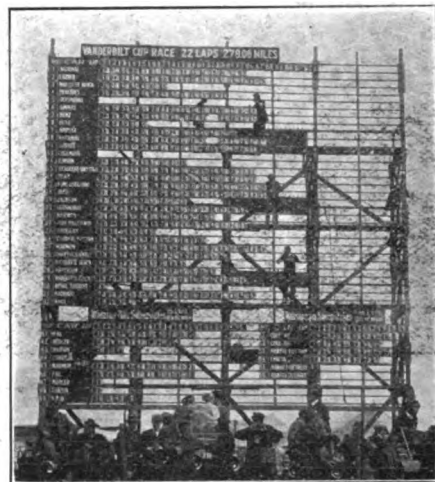
It was at the Westbury turn that things happened and nearly happened! There the crowd was thickest and most unmanageable,



ONE OF THE TURNS WHERE THE CROWD TEMPTED FATE

extending to 30 yards south of the same. Behind this fence there were crowded no less than 5,000 people, with probably more than twice that number overflowing onto the road where the fence ended. Whenever a driver turned the corner, the human line would open and leave a space barely wide

little red flags in the hands of the signalman first began to wave wildly at the turn and the cry went up "Car coming!" It was Ralph Mulford in the Lozier, and the expression on his face and on that of his mechanic when he skidded around the turn, almost crashing into the outer fence, gave



THE NEW "BIRDCAGE" SCORE BOARD

track for the racing cars coming from behind they had to charge almost directly into the crowd at the right side of the track. A large number of people were slightly bruised in these charges, but no one seemed to take sufficient interest in the matter to look for a remedy.

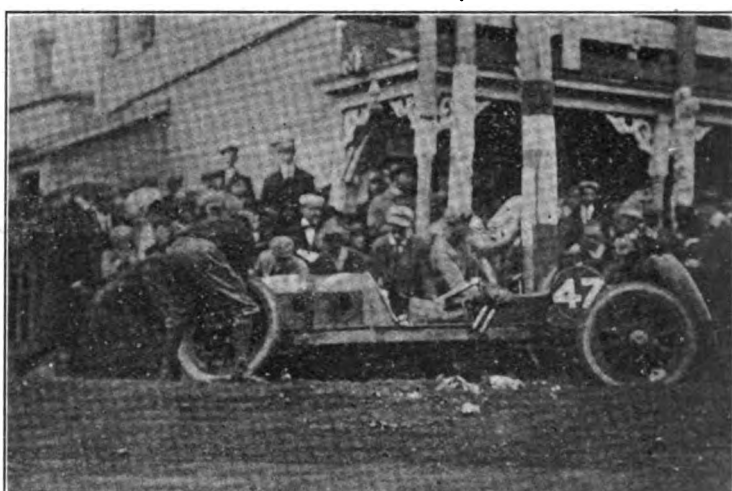
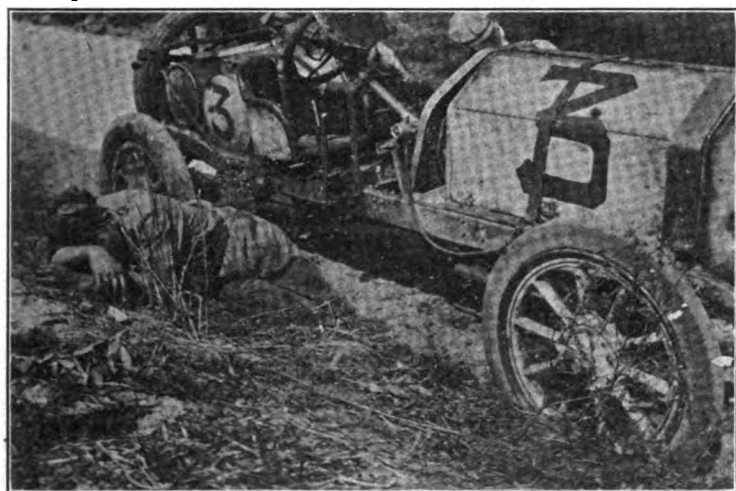
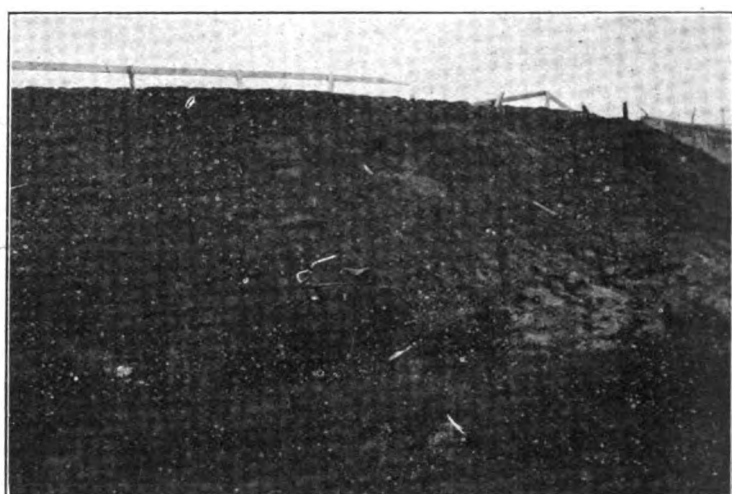
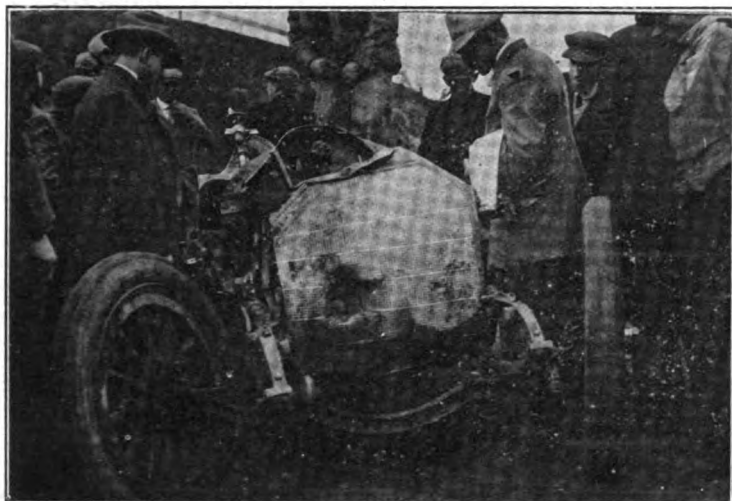
It was five minutes past six when the



an inkling of what might be expected later on when the track was torn up and the drivers in highly excited state. Following the Lozier came the National, the Buick, the Benz and others, the drivers and mechanics of which had each something to grunt about the moment they struck this abominable turn. The first few rounds most of them negotiated it at considerable speed—some of them almost recklessly;

had to charge into the crowd to get out of the way of the Stoddard-Dayton car, which was a few hundred feet behind. While all other people in the way of the Pope-Hartford jumped backward towards the sides of the road, Miller rushed into the middle of the road directly in front of De Hymel's Stoddard-Dayton. In an instant a pair of shoes were flying in the air while Miller shot fully 15 feet upwards and crashed

of the turn hair-breadth escapes were plentiful, and there hardly was a moment when the crowd could remain undisturbed. About one-eighth of a mile south of the turn a woman sat on the edge of the track, with a baby in her arms. She was within six feet of the cars flying past her at top speed, and a slight deviation from the proper line on the part of any one of these cars would have killed her instantly. Yet she would



THE WRECK OF HAROLD STONE'S COLUMBIA  
ARTHUR CHEVROLET IN DESPAIR WHEN FORCED TO QUIT

WHERE STONE PLUNGED FROM THE PARKWAY BRIDGE  
WHERE FREY (MERCER) SKIDDED INTO A TELEGRAPH POLE

but gradually the speed made at this turn decreased until nearly all cars took it at from 15 to 20 miles an hour. Only Burman and Chevrolet continued to send their cars at high speed around the curve, often missing death by inches.

Harold Stone in the Columbia was another who spun around at frightful speed, and though he passed but once there were those at Westbury who were not surprised to learn that a tragic accident had cut short his career but a short distance away. The one accident that did actually happen at the Westbury turn was the fault of the man who was injured, Thomas Miller, who was run into by De Hymel's Stoddard-Dayton. One of the racers, a Pope-Hartford, stopped a short distance before the Westbury turn for some slight adjustment, and

among the spectators. Besides complicated fractures of both legs, one of which was practically severed from the body, he suffered concussion of the brain.

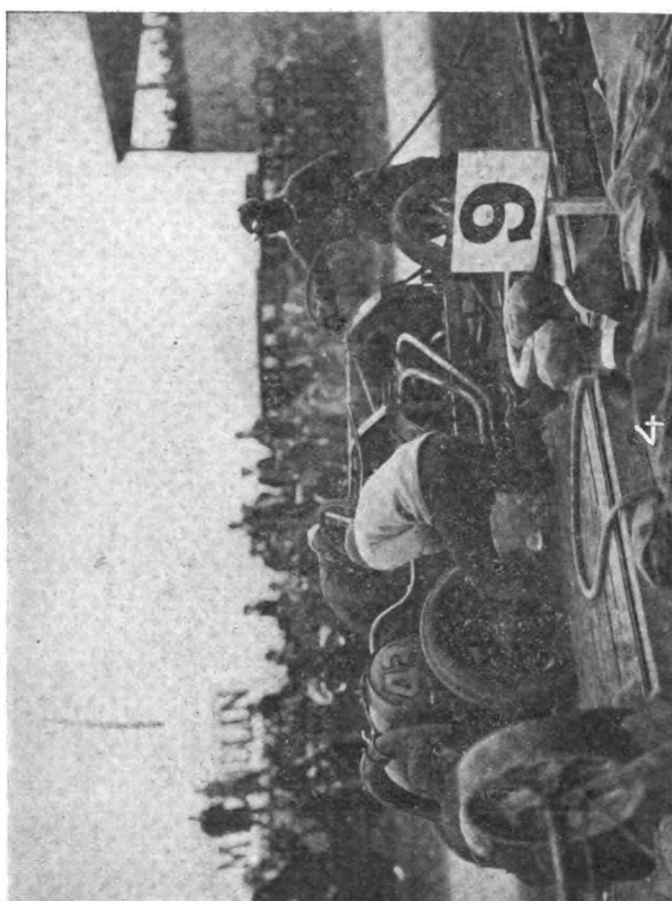
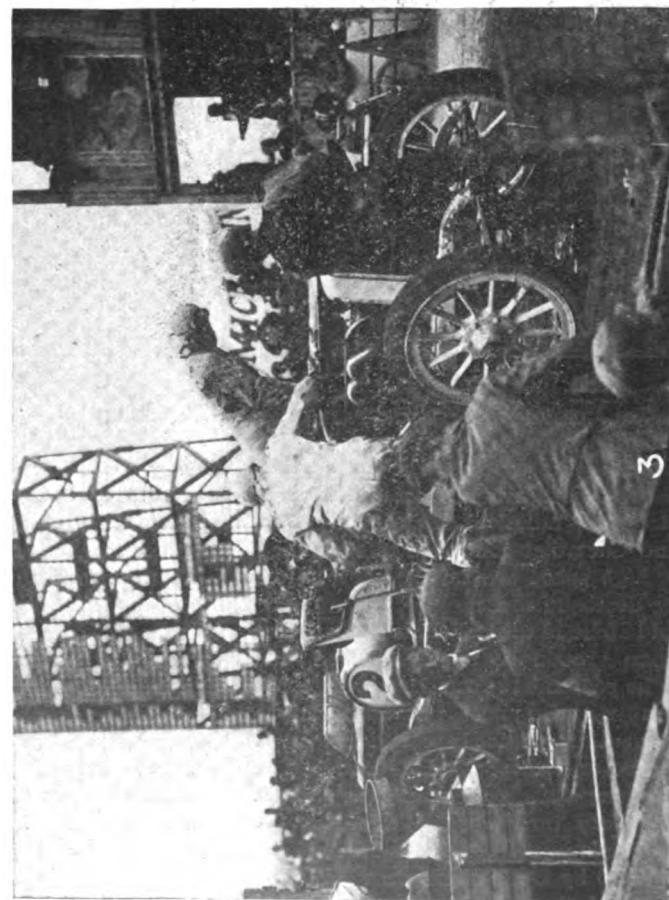
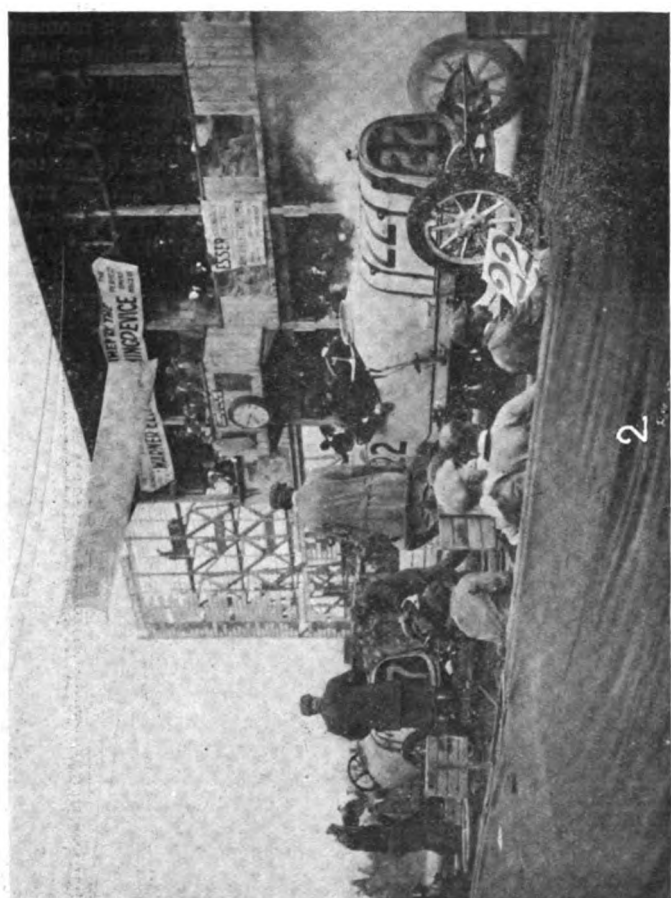
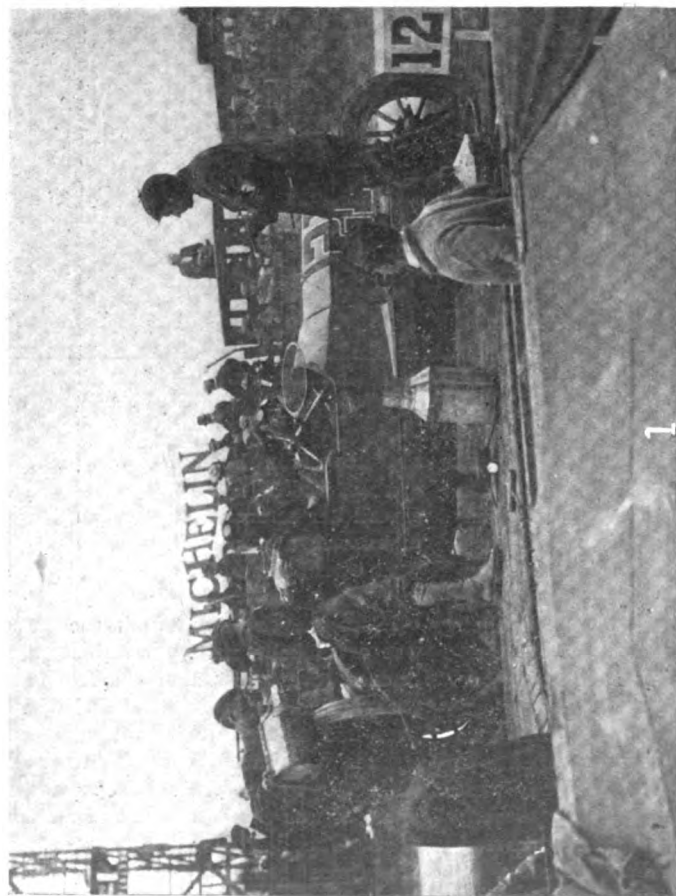
To the south of the road, in the area enclosed by the right angle, a large number of touring cars had been parked by their owners, the prices for parking at this particular place reaching fifty dollars per car. The parties encamped there evidently expected something to happen at this spot and were willing to go to some expense to be present when it did happen. They were disappointed in this, however, for directly at the turn nothing of importance occurred, although the fancy skidding executed by some of the cars taking the turn certainly was spectacular enough to command attention. But a few hundred feet to either side

not move from her dangerous position, and one interested spectator who endeavored to call her attention to her danger received in answer a very curt and snappy "Mind your own business!"

From the tire standpoint the Vanderbilt was a Michelin race. Excepting the three Benzes, every car that started was shod with Michelins; it was the fifth time those tires had served Vanderbilt winners. The Benzes were fitted with Continentals. In respect to ignition, the Bosch was predominant; it was the equipment of all save four cars. The Splittorf magneto sparked for the three Marquette-Buicks, which performed so swiftly and spectacularly. Warner Auto-Meters were the speed-gauges on the first four cars in the race.



TYPICAL SCENES AT THE REPAIR PITS, WHERE QUICK ACTION WAS THE RULE



1—RAY HARROUN (MARION) STOPS WITH BROKEN GASOLINE PIPE. 2—FLEMING AND DINGLEY (POPE-HARTFORD) BOTH CALL FOR TIRES. 3—WHEN MULFORD (LOZIER) HALTED WITH A BROKEN VALVE. 4—BASLE (MARION), ONE OF THE WHEATLEY HILLS CONTENDERS, FINDS CAUSE FOR WORK

## The Story as Told by the Repair Pit Record

### H. F. Grant, Alco.

- 6:50, 17th lap—Took on oil and gasoline. Delay, about two minutes.  
10:08, 21st lap—Changed left front tire. Delay, 30 seconds.

### Joe Dawson, Marmon.

- 8:18, 12th lap—Changed left rear tire; took on gasoline. Delay about five minutes.  
9:33, 18th lap—Repaired gasoline line. Delay, about four minutes.

### John Aitken, National.

- 7:13, 6th lap—Changed tires; took on oil and gasoline.  
9:19, 17th lap—Changed right rear tire.

### Louis A. Disbrow, National.

- 9:02, 15th lap—Took on spare tire, oil and gasoline.

### Ralph Mulford, Lozier.

- 8:19, 7th lap—Put new valve and spring in rear cylinder; took on oil and water. Delay about six minutes.  
9:11, 16th lap—Changed two front and right rear tires. Delay, about four minutes.  
9:37, 18th lap—Changed right rear tire.

### Jack Fleming, Pope-Hartford.

- 7:56, 9th lap—Changed two front and right rear tires; took on gasoline.  
9:25, 17th lap—Changed front and rear left and took on spare tires.  
9:40, 18th lap—Took on supplies.

### Leland A. Mitchell, Simplex.

- 8:12, 11th lap—Made oil pump adjustment and took on oil. Delay, about three minutes.  
9:15, 16th lap—Changed left rear and right front tires and took on one spare tire and oil and gasoline. Delay, about four minutes.

### Edward A. Hearne, Benz.

- 7:28, 7th lap—Changed tires.  
8:39, 13th lap—Changed front and rear left tires. Delay, about three minutes.  
10:16, 21st lap—Changed left rear tire. Delay, two minutes.

### Hugh Harding, Stoddard-Dayton.

- 8:08, 10th lap—Engine trouble; took on gasoline and oil. Delay, about four minutes.  
9:39, 18th lap—Secured broken strut rod under rear axle and took on water. Delay, about four minutes.

### Bert Dingley, Pope-Hartford.

- 7:52, 9th lap—Took on extra rear tire.  
8:30, 12th lap—Changed right rear tire and took on gasoline. Delay, about four minutes.

- 8:47, 13th lap—Changed right front and took on spare tires. Delay, about two minutes.

- 9:28, 16th lap—Took on spare tires. Delay, about one minute.

- 10:18, 20th lap—Took on extra spare tire.

### Harry Stillman, Oldsmobile.

- 8:34, 12th lap—Took on oil and gasoline.  
10:02, 18th lap—Took on supplies.

### David Bruce-Brown, Benz.

- 7:30, 7th lap—Changed left rear and took on spare front tires and water. Delay, about three minutes.

- 8:08, 10th lap—Took on supplies.

- 9:09, 15th lap—Changed left front tire, demountable rim out of order. Delay, about four minutes.

- 9:19, 17th lap—Changed left front tire. Delay, caused by rim trouble, about seven minutes.

### Al. Livingston, National.

- 6:50, 2nd lap—Dirt in auxiliary air valve; tires inflated.

- 9:43, 17th lap—Clutch pedal adjusted; changed tires and took on water. Delay, about five minutes.

### Walter Jones, Amplex.

- 7:24, 2nd lap—Gasoline tank adrift and leaking. Delay in repairing, about 20 minutes.

- 8:39, 11th lap—Changed left front and rear tires. Delay, about six minutes.

- 9:09, 13th lap—Changed front and rear right tires.

### Ralph E. Beardsley, Simplex.

- 8:28, 12th lap—Took on oil and gasoline. Delay, about four minutes.

- 9:33, 18th lap—Changed front tires and took on spares. Delay, about four minutes.

### Harris M. Hanshue, Apperson.

- 6:20, 1st lap—Carburettor adjustments; took on water.

- 7:04, 2nd lap—Changed carburettor. Delay, about 36 minutes.

- 9:29, 13th lap—Took on gasoline and oil. Time lost wiping oil spilled on seats. Tire rack loose and ordered removed. Went on without extra tires. Delay, about four minutes.

### Spencer E. Wishart, Mercedes.

- 6:22, 2nd lap—Took on spare tire. Delay, about two minutes.

- 8:19, 10th lap—Changed spark plugs, adjusted magneto. Delay, nearly 15 minutes.

- 9:12, 12th lap—Took on water. Delay, one minute.

### Carl Limberg, Houpt-Rockwell.

- 8:41, 12th lap—Endeavored to stop at pit

but brakes failed to hold; stopped beyond grand stand and went on.

- 8:56, 13th lap—Overran pit owing to weak brakes, and backed up. Changed left rear and right front and two spare tires; took on oil and gasoline. Condition of brakes challenged by technical committee and test ordered. Brakes failed to hold on two tests and car ordered back to pit. Left brake band lining fabric worn through. Riveted up by crew. Delay, nearly 50 minutes.

### Louis Chevrolet, Marquette-Buick.

- 7:48, 9th lap—Took on spare tires and oil. Delay, about two minutes.

- 8:59, 15th lap—Changed right front and rear tires; took on oil and gasoline. Delay, about three minutes.

### E. F. Schiefler, Jackson.

- 7:00, 1st lap—Broken strut rod bracket. Delayed in repairing until 7:45.

- 10:02, 11th lap—Valve trouble. Delay, about four minutes.

### Ray Harroun, Marmon.

- 6:40, 1st lap—Broken gasoline line.

- 8:47, 9th lap—Took on gasoline. Delay, about three minutes.

### Tobin De Hymel, Stoddard-Dayton.

- 7:03, 5th lap—Repaired leaking water connection.

- 8:08, 10th lap—Took on water. Delay, about two minutes.

### Robert Burman, Marquette-Buick.

No stops at repair pits.

### Joe Mason, Corbin.

- 6:52, 3rd lap—Water gasket trouble; drained radiator and took water.

Delay, about 12 minutes.

- 8:02, 7th lap—Leaking water gasket; drained radiator and took water.

### Arthur Chevrolet, Marquette-Buick.

- 7:41, 7th lap—Took on spare tire and extra driving chain. Mechanic lost chain overboard as car was leaving the pit.

### W. Wallace, American.

- 7:40, 6th lap—Took on water; engine hot. Played hose on radiator.

### Franz Heim, Benz.

No stops at repair pits.

### Fred Belcher, Knox.

No stops at repair pits.

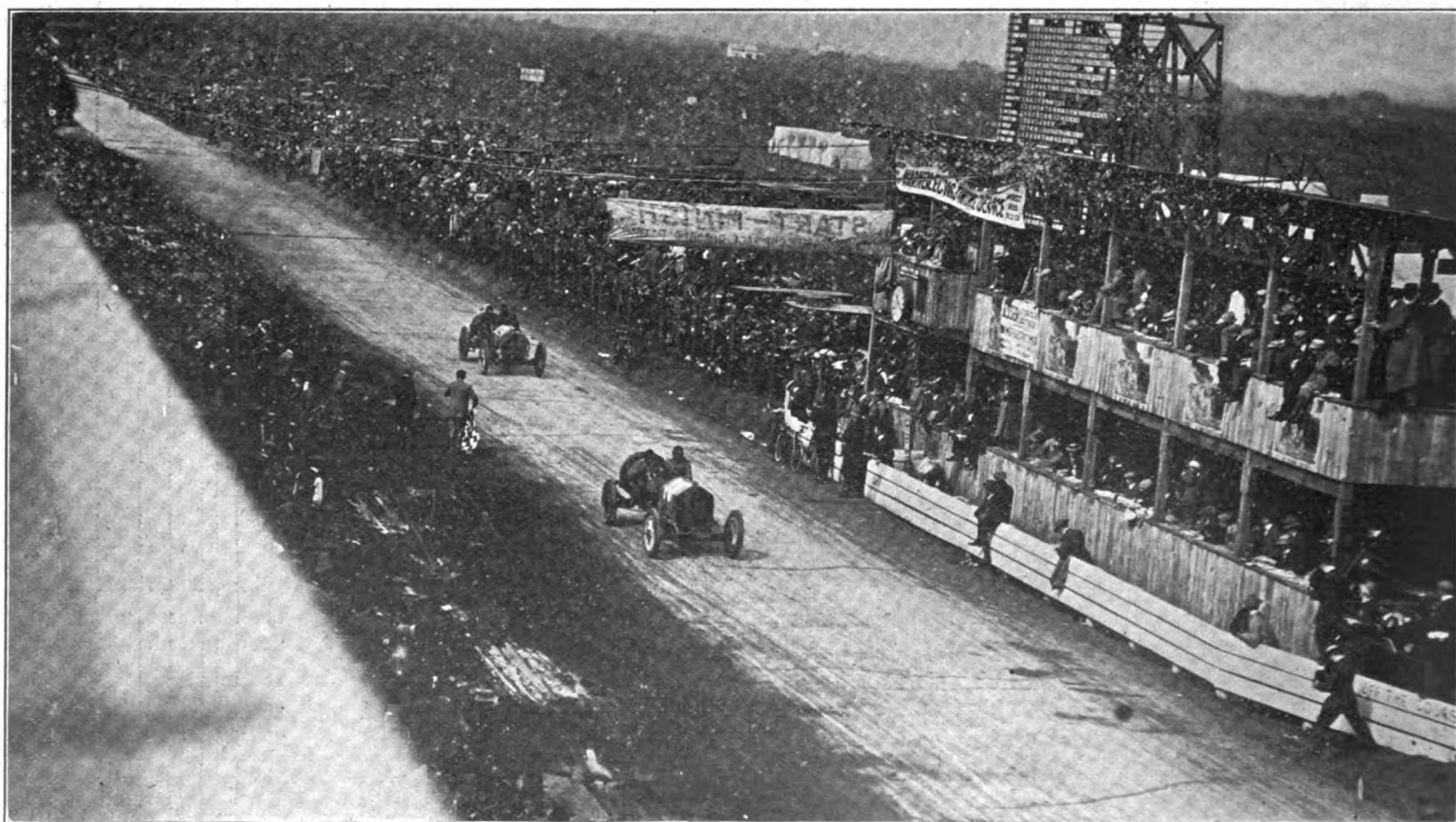
### H. Jardine, Royal Tourist.

- 6:31, 1st lap—Changed tires; engine trouble.

WHEN THERE WAS CAUSE TO "TAKE NOTICE" DURING THE BIG RACE



HOW THE SKIDDERS SKIDDED—GRAPHIC VIEW OF FLEMING (POPE-HARTFORD) SLEWING AROUND THE WESTBURY TURN



AITKEN (NATIONAL) RIDES ANOTHER RING AROUND THE MUCH-TRoubLED WISHART (MERCEDES)



## The Races Within the Race—The Wheatley Hills and the Massapequa

When one big race and two little ones are running on the same course at the same time it is inevitable that the little ones must suffer at least partial eclipse. When the big race is as big as the Vanderbilt cup race it follows that the two little races which were running concurrently were almost completely eclipsed. This was the case last year with the Wheatley Hills sweepstakes and the Massapequa, and it was more than ever the case on Saturday last. The Vanderbilt was bigger than ever before, and the interest in it was so absorbing that the two minor events attracted practically no attention and created practically no comment. Unlike last year, when the three races were started in quick succession, on Saturday last the Wheatley Hills was started one hour after the Van-

derbilt was started. The cars in the lesser races awaited their turns to start

qualified by the technical committee because its makers could not satisfy that body that the output of the car in question had been sufficiently large to justify its recognition as a stock car machine.

Marmon, and Maisonville, in a Corbin, began a fight for the leadership. They were moving at better than a mile a minute and were but three seconds apart the first time around. The Corbin then suffered engine trouble and retired but Heinemann maintained his superb pace and steadily left



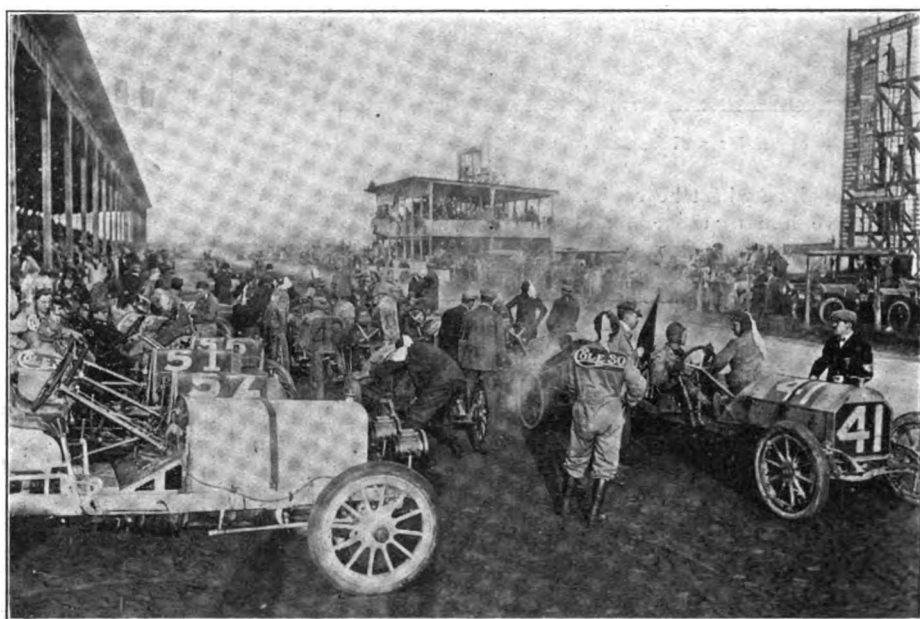
WILLIAM ENDICOTT  
Winner Wheatley Hills Sweepstakes

derbilt get-away had been made and the Massapequa sweepstakes, for the littlest cars, was started one hour after the Wheatley Hills. In each instance they slipped away so quietly and mingled so quickly in the fray of the big race that the average spectator was not aware that they were not a part of it unless he was well posted and had kept close count on his score card.

There were eight starters in the Wheatley Hills sweepstakes, which was restricted to cars of 231-300 cubic inches displacement. The distance of this race was 15 laps, or 189.6 miles. While the Vanderbilt cars were roaring past, the Wheatley Hills entrants were sent away in the following order:

No.	Car.	Driver.
41—	Fal	W. H. Pearce
42—	Mercer	E. H. Sherwood
43—	Marion	Marcel Basle
45—	Marion	Fred Heinemann
46—	Fal	J. F. Gelnaw
47—	Mercer	H. P. Frey
48—	Corbin	Alvin Maisonville
49—	S. P. O.	Jean Juhasz

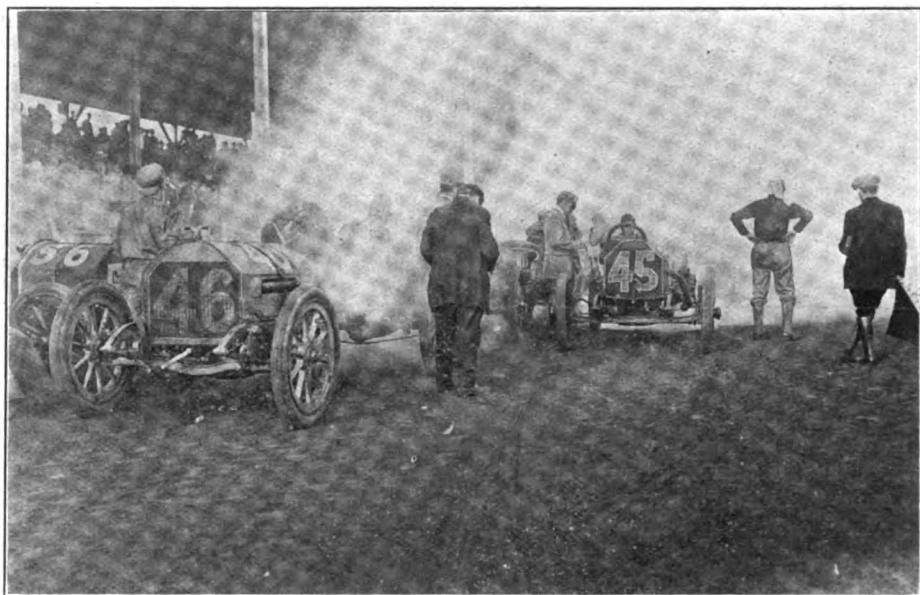
The only non-starter was Montague Roberts in a Correja; which car had been dis-



HOW THE CARS IN THE LESSER RACES AWAITED THEIR TURNS TO START

An eighth of a mile from the starting point it dashed off the cement surface and appeared to lunge into the crowd packed behind the wire fence at the roadside. In the cloud of dust which it had picked up

the others far behind. On the sixth lap he was nearly four minutes ahead of his nearest rival, Pearce, in a Fal car, and nearly seven minutes ahead of Pearce's team mate, Gelnaw, who ultimately won. On the

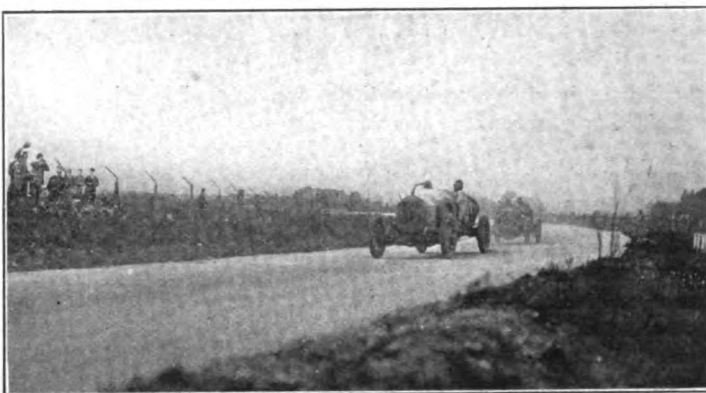
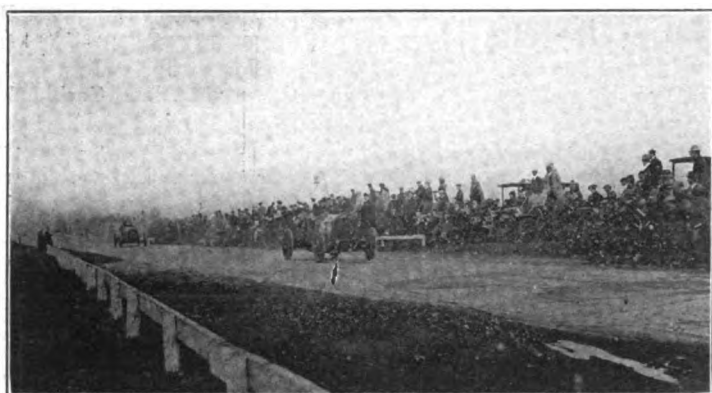


STARTING THE WHEATLEY HILLS CARS WHILE THE VANDERBILT WAS ON

it appeared that a tragic accident must have occurred, but the car straightened out in time and itself suffered no delay.

In the very first lap, Heinemann, in a

seventh lap, however, Heinemann suffered the same trouble which afflicted both of the Marmons in the Vanderbilt race. His gasoline line broke and he lost his lead.



WHEN EXCITEMENT PROMISED—CONTENDERS OVERHAULING RIVALS APPROACHING THE GRAND STAND

He made repairs as best he could, but they did not serve him to the end and on two other occasions, when gaining some of the lost ground, he was forced to slow.

When Heinemann fell on evil times, Pearce seemed to have the race won. In the tenth lap he was some five minutes ahead of his team mate and the next thing he ran into trouble and lost all of his advantage and considerably more. He never was able to regain his stride and Gelnaw went ahead and won by more than ten minutes, completing the 189.6 miles in 194 minutes 39.67 seconds, an average speed of 58.44 miles per hour.

the pits in the Wheatley Hills sweepstakes is as follows:

**J. F. Gelnaw, Fal.**

8:10—Made carburetter adjustment. Delay about two minutes.

**W. H. Pearce, Fal.**

9:55—Changed right rear tire and took on water. Delay about two minutes.

10:10—Gasolene line repaired. Delay about two minutes.

**E. H. Sherwood, Mercer.**

7:18—Adjusted accelerator pedal and took on two spare tires.

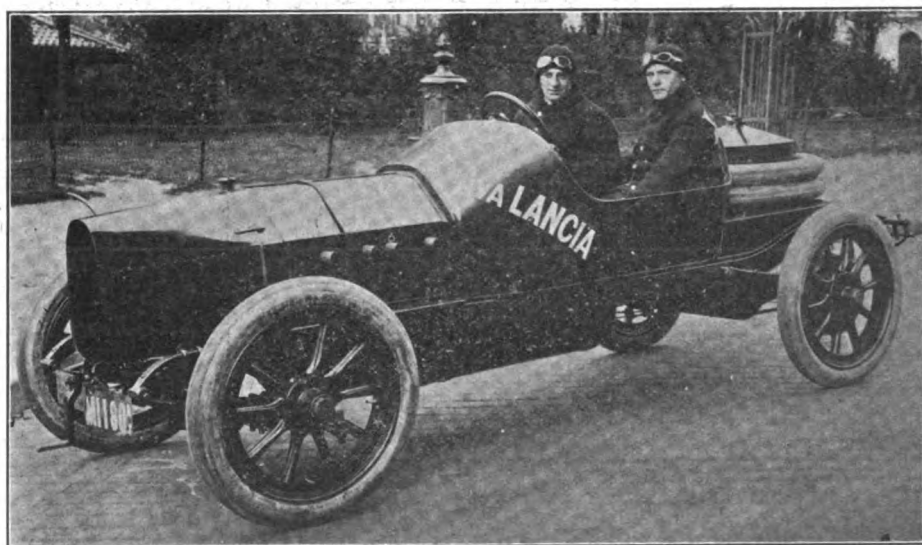
When the Wheatley Hills sweepstakes had been in progress an hour, and the Vanderbilt race two hours, the five cars starting in the Massapequa sweepstakes, restricted to cars of 161-230 cubic inches displacement, were sent away in the following order:

No.	Car.	Driver.
51—	Cole "30".....	Bill Endicott
52—	Cole "30".....	Louis Edmunds
53—	Abbott-Detroit ....	Mortimer Roberts
54—	Lancia .....	Billy Knipper
56—	Abbott-Detroit ....	V. Padula

Immediately he received the word "Go," William Knipper, in the torpedo-shaped Lancia—the only foreign car in the event—proceeded to make a runaway race of it. He drew further and further ahead on each succeeding lap, until the eighth, and then again was it proven that "the race is not always to the swift." On the Massapequa turn the Lancia skidded into a telegraph pole, charging into a group of spectators and pinning one of them against the pole, but, marvelous to say, without inflicting serious injury. The car turned over and that was the end of it.

Padula in the Abbott-Detroit was another skidder who suffered. He, too, struck a telegraph pole and rendered his car hors de combat and himself was slightly injured.

When Knipper went down and out, William Endicott, in a Cole "30," who had been driving a consistent race, passed into the lead and was never thereafter in danger. He completed the 126.4 miles (10 laps) in 138 minutes 4.32 seconds, an average of 54.93 miles per hour. Roberts, Abbott-Detroit, was second, four minutes to the bad, and Louis Edmunds, in another Cole "30," was third, four minutes behind Roberts. Edmunds had run true but suffered a long delay. When passing the grand stand he was signaled by the officials and required to stop and fasten the spare tires which were dragging on the ground from the rear deck. The straps had broken and as Edmunds was unable to stop until nearly half a mile beyond the point at which he was hailed he appeared at a loss what to do to keep the tires in place and spent an unusually long time fiddling with them before he restarted.



KNIPPER AND THE LANCIA WHICH STRUCK A TELEGRAPH POLE

Pearce, Heineman and Sherwood, the latter in a Mercer, were the only others running when the race was completed. Sherwood had had tire and valve trouble. It was Frey, Sherwood's team mate, who came near to providing a tragedy in the Wheatley Hills sweepstakes. Near Hicksville, a tire blew up, and the car skidded into a telegraph pole, narrowly escaping the great crowd gathered there. Fortunately he struck the pole in such a position that although the car was practically wrecked neither of its occupants and none of the spectators were injured.

The unofficial record of repairs made at

8:14—Exhaust valve trouble; changed tires and took on gasolene and oil. Delay about 25 minutes.

10:30—Took on supplies.

**Fred Heineman, Marmon.**

10:06—Stopped for conference with pit foreman; went on without delay.

**Marcel Basle, Marion.**

7:58—Changed right rear tire and took on water. Delayed, by spark trouble, about four minutes.

**Alvin Maisonville, Corbin.**

Did not stop at repair pit.



**GRAND PRIZE CAUSES TURMOIL**

**Newspaper Clamor Threatens the Big Race  
—Savannah Bids for it—Oldfield Spouts  
and Froehlich is Jolted.**

Due to newspaper hysteria born of the accidents incident to the Vanderbilt cup race, the supervisors of Nassau county and the Motor Cups Holding Co., which latter is promoting the Grand Prize race, due to occur Saturday, 15th inst., on the Long Island Motor Parkway and the public roads comprising the Vanderbilt course, were placed in a discomfiting position and for a while it seemed doubtful if the Grand Prize contest would be held as scheduled. In fact, not all of the doubt has been removed, but that part of it which lingers is of the vanishing variety. One of the Nassau supervisors was much upset by the newspaper clamor which demanded that the permit to use the highways be revoked and he was for heeding the cry instant, but other counsel prevailed and by requiring that the Grand Prize package be opened at 10 o'clock a. m. instead of at day break, as originally purposed, the supervisors stilled some of the clamor.

By 10 o'clock it is believed that the natives will have rubbed the sleep from their eyes and that there will be no occasion for other race-goers who travel in automobiles to the scene to court disaster by making the journey thither during the hours of darkness.

The present condition of the Jericho turnpike is declared to be such that Barney Oldfield, who hasn't seen it, wired Bill Pickens, his business manager and advertising agent—or at least Bill says he received such a message—to withdraw the Oley Barnfield entry unless troops guarded the entire course, in place of police, with whom he seems at some time to have had unpleasant experiences. Although only six weeks ago he furnished the newspapers with a list of the gasoline encounters he had survived—most of them on railed and guarded tracks—he now values his life far above rich men's gains. By first getting in his protest he leads all the drivers; so long as he is in the van somehow he seems likely to be happy. As a matter of fact, however, Oldfield stated several weeks ago that he had no serious intention of competing for the Grand Prize. Other drivers, too, are objecting to the condition of the road, its surface, narrowness and lack of banking. However, as the local authorities already have granted the necessary permission, with sundry modifications, the race is well nigh certain to be held on the Vanderbilt course as originally selected. Although there are those who favor postponing the event until November, in order to give Nature and the management an opportunity to wet down and otherwise put the course into

better shape, as the official permit specifies October 15th, the race almost certainly will be held on that date. Fifteen entries are in hand, as follows:

Car.	Driver.
Benz .....	Edward Hearne.
Benz .....	Victor Hemery.
Benz .....	Franz Heim.
Fiat .....	Louis Wagner.
Fiat .....	Ralph De Palma.
Fiat .....	Felice Nazzaro.
Marmon .....	Ray Harroun.
Marmon .....	Joe Dawson.
Marmon .....	
Marquette-Buick .....	Louis Chevrolet.
Marquette-Buick .....	Robert Burman.
Marquette-Buick .....	Arthur Chevrolet.
Roebeling-Planche .....	Wash. Roebeling, 2d.
Alco .....	Harry F. Grant.
Mercedes .....	Geo. M. Armstrong.

In addition to changing the starting hour, the distance also has been altered. The race will go 379.2 miles, or 30 laps, instead of 278.8, or 22 laps, as originally specified. Wagner won the first Grand Prize by averaging 65.08 miles an hour. Being a free-for-all affair, without restriction as to weight, cylinders and dimensions, this year's contest, it has been argued, may prove a blow to the progress of the stock car by placing a premium on freaks. The insignificant restrictions imposed by the Automobile Club of America, which controls international racing, were announced as due to the failure of the International Association of Clubs this year to adopt a racing formula.

The first development regarding the race following the decision of the supervisors that the hour of starting must be changed, came Tuesday, when the Motor Cups Holding Co. sent to Jesse Froehlich, managing director of the Benz Import Co., a check covering the amount of the entry money for the three cars entered by that concern. Taking his cue from Oldfield, Froehlich threatened to withdraw the Benz cars from the approaching contest unless the course was "properly protected." He also tossed bouquets at the Savannah management of the first Grand Prize and advised all other entrants to lend their aid toward carrying the contest to that Southern city, which, as soon as the newspaper reports of the Vanderbilt "shamble"—so called—reached it, promptly filed a bid for the race. Froehlich's communication was addressed to A. R. Partington, in a rasping, bumptious style, and, to cap the climax, Froehlich sent copies of it to all the newspapers, several of which gave him the advertising he sought by printing it in full. In returning the German entry money, W. K. Vanderbilt, Jr., who signed the letter, declares that Froehlich's criticisms made upon the management of the Vanderbilt race are unwarranted and their tone, as well, making it unwise that the cars under his management should compete. Froehlich apparently did not count on such a quick snap-back, but whether or not the management can keep out the Benz entries remains to be seen.

**LOCAL TALENT MEETS AT OMAHA**

**Two Days' Racing on New Speedway Develops Protested Victories—Reichenberger Captures Eight Events.**

Two days of good racing on the new Omaha Motor Speedway helped break the monotony of that Nebraska City on Saturday and Sunday last, 1st and 2d inst. The meet, which was under the auspices of the Omaha Motor Club, was confined to local talent. E. Reichenberger in a Firestone-Columbus was greatly in evidence the first day, taking the 20 miles free-for-all, two 10 miles events for cars of different values, and the mile at flying start.

H. E. Frederickson in a Chalmers captured the five miles open, and William Bruner, Hudson, the five miles for cars costing less than \$1,000. Reichenberger did almost as well the second day, carrying off the 25 miles free-for-all, the 10 miles for cars selling for \$3,000 or less, the 10 miles for cars selling for \$2,000 or less, and the mile flying start. George F. Reim, Cadillac, took the 10 miles event for equipped touring cars. The Velie was awarded the five miles obstacle race, in which the award was protested. The 10 miles fully equipped race also suffered protest.

Exception was taken to the Firestone-Columbus entries on the ground that the price of that car did not permit of its being in certain of the classes it entered, but Reichenberger promised to make good his claim or not accept any prizes. The summaries:

Twenty miles, free-for-all—Won by E. Reichenberger, Firestone-Columbus; second, H. E. Frederickson, Chalmers; third, J. Stickney, Velie. Time, 21:45½.

Ten miles for cars selling for \$1,500 to \$2,000—Won by E. Reichenberger, Firestone-Columbus; second, J. Stickney, Velie; third, Nygard, Cadillac. Time, 11:06.

Ten miles for cars selling for \$1,000 to \$1,449—Won by E. Reichenberger, Firestone-Columbus; second, William Bruner, Hudson; third, Walter Smith, Hupmobile. Time, 13:34½.

Five miles for cars selling for less than \$1,000—Won by William Bruner, Hudson. Time, 6:25.

Five miles for fully equipped touring cars—Won by H. E. Frederickson, Chalmers; second, Ashley, Midland; third, Harry Woodruff, Stevens-Duryea. Time, 6:05.

Mile time trial with flying start—Reichenberger, Firestone-Columbus. Time, 1:07.

Twenty-five miles free-for-all—Won by E. Reichenberger, Firestone-Columbus; second, Reim, Cadillac; third, J. A. Ashley, Midland. Time, 26:57½.

Five miles obstacle—Won by J. Stickney, Velie; second, Frederickson, Chalmers.

Ten miles for cars selling for \$3,000 or

less—Won by E. Reichenberger, Firestone-Columbus; second, Carl Holt, Warren-Detroit; third, Frederickson, Chalmers. Time, 11:54½.

Ten miles for cars selling for \$2,000 or less—Won by Reichenberger, Firestone-Columbus; second, Stickney, Velie; third, Reim, Cadillac. Time, 11:25½.

Ten miles for fully equipped touring cars—Won by Reim, Cadillac; second, Ashley, Midland. Time, 11:45.

#### Long Run for Thomas Car on High Gear.

Although "high-gear" endurance tests have been carried out both in this country and abroad, it remained for the E. R. Thomas Motor Co., Buffalo, N. Y., to demonstrate the efficiency of its new model "M" 6-40 car, by sending it over a varying, and at times mountainous, route of 2,500 miles with its gearset stripped of all pinions except the reverse, and sealed, thus making it impossible to use any but the high gear in forward travel. George Miller, of the old New York-to-Paris crew, and Fred Nehrbas alternated as drivers, and in addition to an official log-keeper, various observers were taken on at different points during the tour.

The test was completed last Saturday, 1st inst., upon the return of the car to Buffalo after ten days of continuous running. The route covered included the 1,600 foot climb over Meadville mountain between Erie and Pittsburg, the ascent of the Allegheny range in going from Pittsburg to Gettysburg, Pa., and the difficult roads through the Laurel range between Ligonier and McConnellsburg. The portion of the course lying toward New York, and beyond to Boston, offered fewer obstacles to a test of this nature, and the arrival of the party in the latter city was marked by the ascent of the redoubtable Corey hill—still on high gear, of course. In traversing the White and Green mountain ranges unfavorable highway conditions again were encountered, one of the most difficult stretches being the ascent of Crawford's Notch, with its continuous climb for six miles.

#### Tragedy Terminates Springfield Racemeet.

The automobile races held in connection with the state fair at Springfield, Ill., Saturday, 1st inst., were cut short at the very beginning, owing to the spectacular accident that caused the death of Larue Vredenburg, president of the Springfield Automobile Club. He was driving his own car at the time in the first of the events scheduled. Plunging into a cloud of dust he was so blinded that he crashed into a fence, and was instantly killed. A spectator was struck, but, though seriously injured, is expected to live. On Monday Ben Kerscher who has recovered from recent injuries and Oldfield "performed," and obligingly broke three of the alleged "state dirt track records" which they usually leave in their wake.

## MAKE THEIR MARKS IN MANITOBA

### Canadian Contestants Establish Three "Dirt Track Records"—Power Again Wins Dunlop Trophy.

Three Canadian dirt track records were established at Kirkfield Park, Winnipeg, Manitoba, at the fourth annual race meeting of the Winnipeg Automobile Club on September 24th. The new marks were made in the 25 miles event for the Dunlop trophy, the 10 miles for Class C cars and the mile time trials, and while the 25 miles trophy event was supposed to be the feature of the day, the 10 miles for Class C cars was a battle royal. It was won by less than a yard by D. A. Brown, Warren-Detroit, in 12:40, after a hammer and tongs fight with Henderson's McLaughlin-Buick. Horn, Maytag, was a close third.

W. C. Power in a McLaughlin-Buick, who won the Dunlop trophy in 1909, captured it again, covering the 25 miles in 25:19½. Of the seven starters, Richard Husk, Knox, lost a chance for first place, when he ran out of oil on the twenty-third mile. Horn Maytag, met with the same setback, while R. Roach, Ford, completed only two miles. W. Guest, National, was second, and A. Moore, Kissel, third. The existing mile record of 1:07½ was beaten by three cars. Husk, Knox, first covered the distance in 1:03. Then Guest, National, made 1:01½, only to have W. C. Power follow him in a McLaughlin-Buick in 59 seconds. W. Guest in the McLaughlin-Buick captured the 10 miles event for Class D cars in 11:19, a new mark, with D. A. Brown, Warren-Detroit, second, and Houghton, Knox, third. Horn, Maytag, took the five miles contest for cars not exceeding 100 cubic inches displacement in 6:25, J. Kline, McLaughlin-Buick, being second. Although the weather was cold and damp the attendance was large. The summary:

Ten miles, Class C (161 to 230 cubic inches)—Won by D. A. Brown, Warren-Detroit; second, J. Kline, McLaughlin-Buick; third, Horn, Maytag. Time, 12:40.

Ten miles, Class D (231-300 cubic inches)—Won by W. Guest, McLaughlin-Buick; second, D. A. Brown, Warren-Detroit; third, Houghton, Knox. Time, 11:19.

Twenty-five miles—Won by W. C. Power, McLaughlin-Buick; second, W. Guest, National; third, A. Moore, Kissel Kar. Time, 25:19½.

Five miles (for cars under 100 cubic inches)—Won by Horn, Maytag; second, Kline, McLaughlin-Buick. Time, 6:25.

Mile time trials—Won by W. C. Powers, McLaughlin-Buick. Time, 59 seconds.

#### Motorists Buried Under Liquid Steel.

While the automobile has been productive of many unusual and extraordinary accidents, it is doubtful if there ever was one

which in its horrible details equals the running of a motor car into a flood of liquid steel—an accident which happened in South Chicago, Ill., a few days ago. The automobile, in which were three women and one man, tried to cross the railroad track leading from the Wisconsin Steel Co.'s plant to the dumping place in the lake. At that moment one of the regular work trains came along, loaded with several tons of molten steel refuse. In the collision the automobile and its occupants were covered with the white hot steel, three being killed outright and one seriously burned.

#### Clubs and Club Elections.

The Frankfort (Ky.) Automobile Club has been organized. Dr. John G. South, president; Basil Kenney, secretary.

At a meeting of Columbia (Tenn.) automobile owners the Maury County Automobile Association was organized, with the following officers: Fred R. Gamble, president; G. T. Hughes, secretary.

Incorporated in the state of Minnesota, with a capital of \$50,000, the newly formed Minneapolis Automobile Owners' Association has elected officers as follows: H. M. BcAllister, president; T. G. Newgood, vice-president; A. C. Raymond, secretary.

Twenty automobilists of Maroa, Ill., have formed the Maroa Motor Club with the following officers: James Pulliam, president; George Conover, secretary; J. T. Keats, treasurer. J. Crocker, C. J. Cooper and J. T. Keats were appointed a committee on rules.

The Owensboro Automobile Club has been organized by motorists of the Kentucky town of that name. Its officers are: Dr. J. R. Anderson, president; W. H. Brannon, vice-president; D. C. Stinson, second vice-president; H. L. Scharlach, secretary; W. L. Reno, treasurer.

Forty automobile owners of Leominster, Mass., have formed an automobile club, taking its name from their home town. The officers for the first year are: W. H. Chase, president; Arthur H. Hall, vice-president; Murray C. Damon, secretary and treasurer; George P. Jones, Alfred N. Litch, Charles H. Howe and John W. Pickering, directors.

#### Says Owner's Brother is a Chauffeur.

Although it has been decided by the New York state officials that any member of a family may drive an automobile belonging to a member of such family, without a chauffeur's license, Magistrate Fitch, of the Flushing (L. I.) police court held William G. King, of New Brighton, S. I., and Harry Weber, of 244 West 72d street, New York City, for the Court of Special Sessions for driving an automobile belonging to King's brother without having a chauffeur's license. King and Weber were arrested on Hoffman boulevard, Newtown, and King was also charged with violating the speed law. Pleading guilty to this charge cost him a fine of \$20.

**REFINEMENT OF THE RAMBLER**

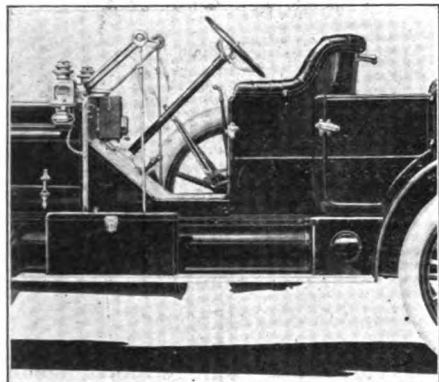
**Detachable Doors, Larger Wheels and Longer Base—Spare Wheels and Offset Crank Shaft Retained.**

In adopting the closed-front bodies for their new products not a few of the American automobile manufacturers appear to go upon the assumption that all of their customers will want closed-fronts all of the

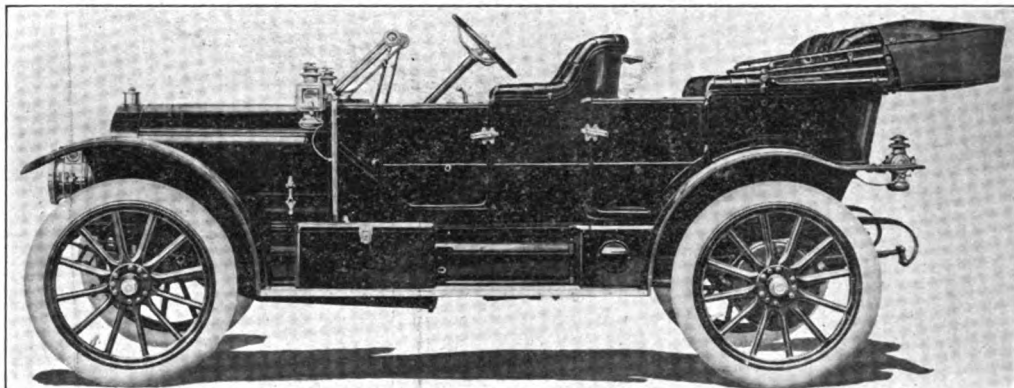
machines are designated, readily to be distinguished from their predecessors.

Model "65," for example, is regularly produced with nickel-plated trimmings. In addition, it is equipped with 40-inch wheels and 4½-inch tires, a drop frame and underslung front springs. Both of the two styles of chassis produced have longer wheel base than before, while the distinction of the new bodies is added a mark of identification in the shape of a new radiator saddle, filler cap and a modified method of radiator fin-

The 45 horsepower chassis is used for models "64" and "65." The former is built in the form of a five passenger touring car, small tonneau or landaulet. The latter is made as a seven passenger touring car or a seven passenger limousine. Model "63" is furnished as a five passenger touring car, a two passenger roadster, a four passenger coupe and as a town car. It is recommended as being a more economical car to drive than the larger model and therefore is especially intended to satisfy the re-



NEW BODY WITHOUT DOORS



RAMBLER MODEL "63" WITH DETACHABLE FRONT DOORS

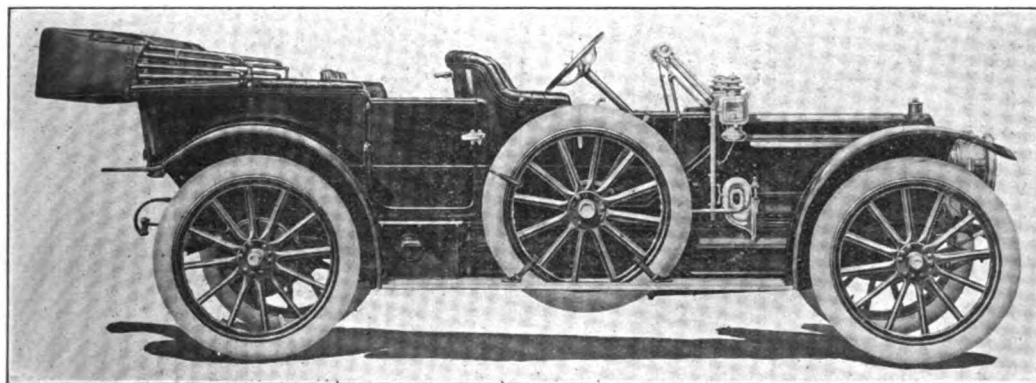
time. It is by no means inconceivable, however, that for many purposes the old standard open-front arrangement may seem preferable to many motorists for at least a part of the time. It is with this idea that The Thomas B. Jeffery Co., of Kenosha, Wis., has introduced a detachable front door design in the new Rambler models which just have been announced. The arrangement enables the motorist to enjoy the full protection of the high sides and front doors during cold and windy weather, while during warm weather or when it is

ish; while an innovation in the rear suspension is the adoption of so-called "seven-eighths elliptical" springs.

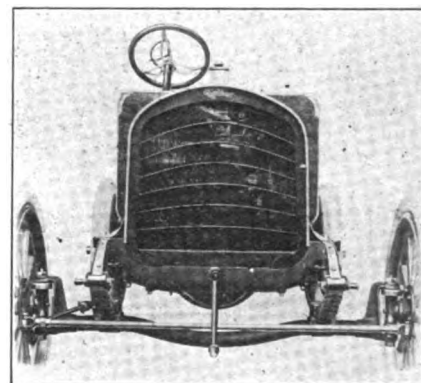
The line as now constituted is composed of nine different styles of open and closed cars, all of which are mounted upon the standard Rambler chassis. The chassis are built in two different sizes of 45 and 34 horsepower output. In revising the construction in the general way already indicated, the fundamental characteristics of Rambler construction have been retained. As is well known, these include the offset

quirements of the owner who prefers to drive his own machine rather than to entrust it to the tender—and sometimes expensive—mercies of a paid chauffeur.

In increasing the tire sizes of the larger chassis from 36 by 4½ to 40 by 4½ inches, the wheel base has been lengthened from 123 inches to 128. Despite the increase in wheel diameter, however, the device of perching the front springs beneath the axle instead of above it, together with the dropping of the frame have combined to maintain the body level at the same height



RAMBLER MODEL "65" SEVEN PASSENGER TOURING CAR



NEW RAMBLER, FRONT VIEW

necessary to enter and leave the car frequently the front may be left open.

This is but one of a number of interesting features that have been introduced into the new line. Though most of the changes are of a minor nature, the general design of the machines remaining much the same as during the past two or three years, several are of the sort that will enable the models "63," "64" and "65," as the new

crank shaft, straight line drive and the spare wheel in addition to a number of ingenious minor details. Shock absorbers, of the Truffault-Hartford pattern, now are a regular equipment feature, the shock specifications also including such liberal items as tops and envelopes, wind shields, combination electric and oil side and tail lamps and gas headlights with Prest-O-Lite tanks.

above the ground as that of the five passenger model with its 36 inch wheels. Reckoning as assets the superior riding qualities of the larger equipment, the increased cost of the large tire mounting is but \$10 per tire in excess of the cost of the 36 by 4½ inch size.

The "64" model, in the main, is the same as the "65." It is, however, equipped with 36 by 4½ inch tires, has 120 inch wheel

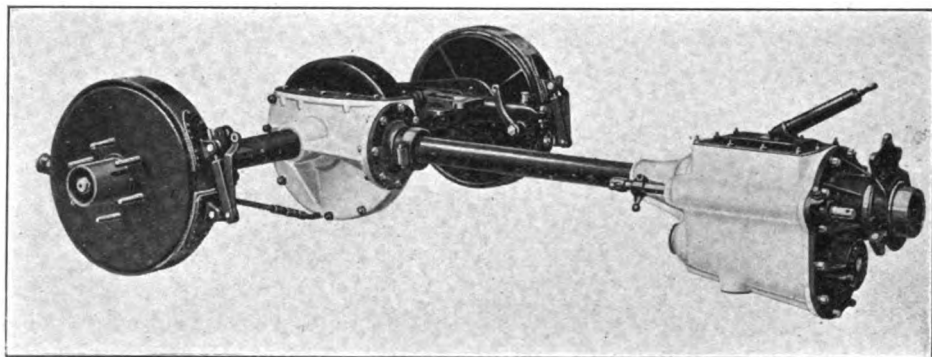
base, standard front springs, straight line frame and brass trimmings. Model "63" has 112 inch wheel base and 36 by 4 inch tires, as against 109 inch base and 36 by 3½ inch tires—the specifications of the previous corresponding model. This model is equipped with dual ignition by Splitdorf magneto and 6-80 Vesta storage battery. The 45 horsepower models have Bosch

and in changing the side brackets, which now are flush with the floor level. The front doors for all models are practically dash high, the arrangement for the right side being merely a solid panel with the gear changing lever placed inside and the emergency brake lever outside.

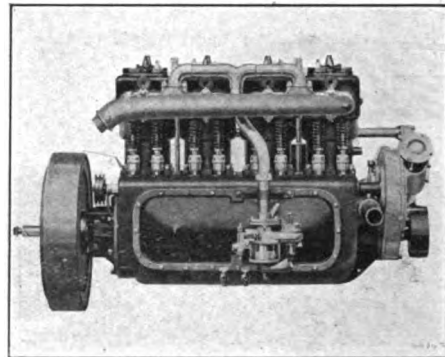
In developing the new form of rear spring suspension the general form of the

further by an increase in the size of the wheel spokes.

In the new models the carburetter is mounted on the right side, instead of on the left, as in the past, the inlet manifold being carried above the exhaust. Two priming cups are conveniently located to facilitate starting during cold weather. The Stromberg carburetter has been adopted as



RAMBLER TRANSMISSION AND AXLE CONSTRUCTION IN DETAIL.



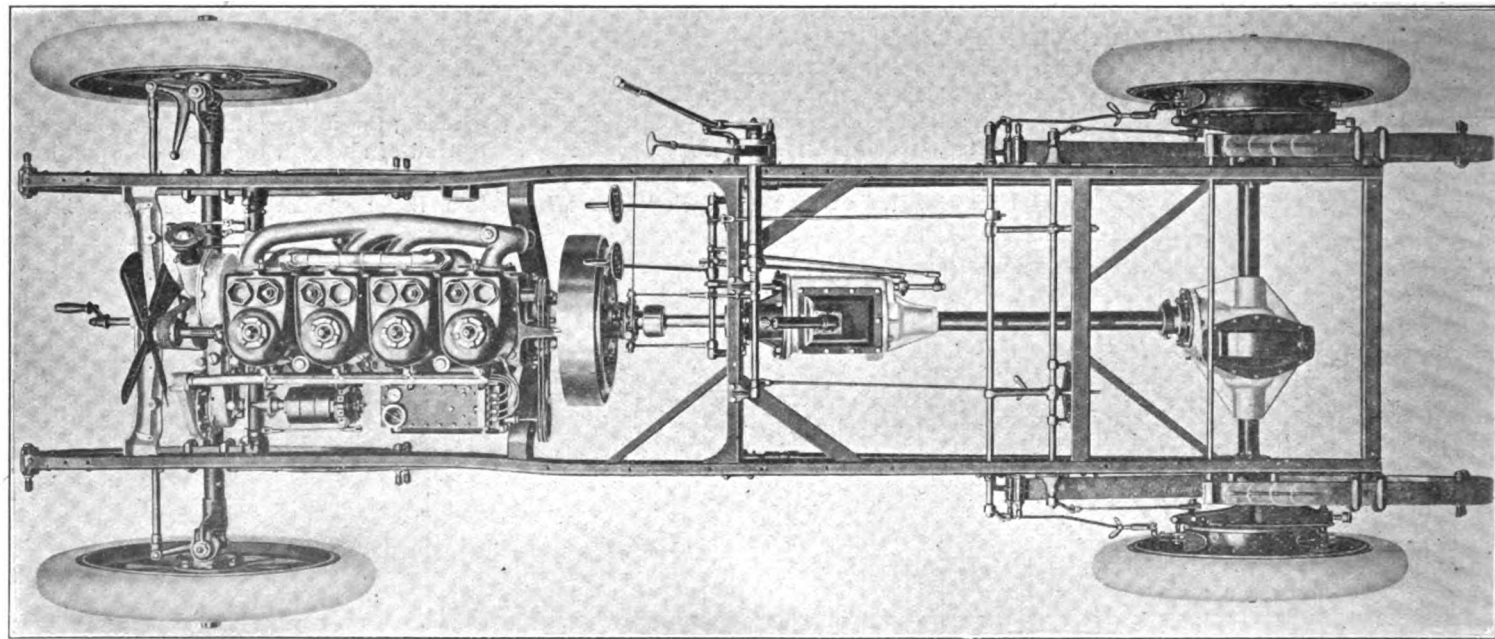
THE NEW RAMBLER ENGINE

magneto and 6-80 accumulator. Both systems operate with a single set of spark plugs through the agency of the Rambler high tension switch and timer, which are original contrivances that have proved effective through long-continued service.

As has been indicated, the general construction of the two models of chassis is

three-quarter elliptic has been retained, but the upper member has been made longer and is secured at two points instead of at one only, two bars passing through the frame from side to side to hold the spring members in place and thus relieve the frame of twisting stresses and minimizing side sway. All spring joints

the new standard. Among other minor changes in engine and auxiliary construction may be mentioned the adoption of a bolted coupling for the magneto shaft; the mounting of the lubricator directly on the engine, instead of on a bracket attached to the frame; the addition of 28 square inches to the bearing surface on the crank shaft



RAMBLER MODEL "64" CHASSIS SHOWING BRAKE ADJUSTMENT AND OTHER DETAILS

practically the same, both embodying, with the exceptions already noted, the same changes over previous products. Therefore it is possible to mention in detail several of the novel points in the new line as applying to the entire product. In the construction of the new closed-front bodies, for example, a redesign of the foot boards has been necessary to the extent of altering the inclination of the toe rests

now are equipped with grease cups. Four shock absorbers are specified for the larger models and two for the smaller.

Larger and heavier brakes with increased leverage are employed. The diameter of the drums has been increased from 2 to 2¾ inches, the increase in area thus amounting to 97 square inches. Both sets of brakes are evened and the efficiency of the equipment has been increased even

of the larger engine; the bolting of the fly wheel to the crank shaft, instead of the former key fastening; and the concentration of an increased amount of metal at the rim of the fly wheel.

The change speed gear, as formerly, is mounted in the solid line housing which encloses the driving mechanism, and is supported in a universal mounting back of the fly wheel. The connecting universal joint



shaft now is made longer than before, however so that this coupling between the clutch and change gear may be removed without disturbing either member. The expanding ring clutch, which is a feature on all models, has been simplified in design and in adjustment. Instead of separate shoes and toggles a single expanding shoe now is employed, with a single adjusting device.

The transmission gears have been increased in size and a lock has been placed on the second gear to hold it in place. Taper roller bearings now are used instead of ball bearings in supporting the differential, and, on the 45 horsepower

### FIRESTONE'S FORCE CONFERS

**Annual Convention in Akron Largest and Most Notable of Such Gatherings—The Men Who Were There.**

Each September the branch managers, agents and salesmen of The Firestone Tire & Rubber Co. gather in Akron, Ohio, to listen to words of President H. S. Firestone and to discuss tires and selling plans in general and Firestone tires and Firestone plans in particular.

This year's convention, which ended last

W. A. Simonson, W. L. Esterly, J. H. Irwin, F. E. Gahagan, W. A. Clark, C. C. Eichelberger, S. N. Harris, J. G. Robertson, S. G. Carkhuff, R. J. Firestone, H. S. Firestone (president), A. C. Miller, Will Christy, T. J. Glenn, E. L. Campion, W. F. West, W. A. Harshaw, O. Fenstermacher, A. F. Sheldon, R. H. Turner, W. C. Mayville, C. E. Jackson, J. V. Mowe, D. C. Swander, W. R. Walton, F. H. Martin, Chas. Habegger, W. H. Rowerdink, R. E. Warner, A. G. Partridge, O. A. Lazenby, F. L. Black, W. T. Brown, D. B. Price, J. A. Smith, J. F. Singleton, E. S. Firestone, W. W. Robertson, P. B. Bosworth, B. N. Beedon, D. F. White, W. F. Bailey.



FIRESTONE CONFEREES GROUPED IN FRONT OF NEW FACTORY BEING ERECTED IN AKRON

model, they are now employed on the front steering knuckles. A combined distance and torsion rod now replaces the old distance rod and serves to relieve the driving shaft housing of torsional stresses. At the forward end each of these two rods is secured by means of a ball and socket joint to a bracket bolted to the side frame member, instead of to a cross frame member, adding rigidity to the system.

In the way of finish, in addition to the points noted above, an improvement has been made in the upholstering of the backs of the front seats, to protect them from scratching and also to provide pockets for the top side curtains. The headlights on the larger model are one inch larger than formerly, being 8 and 9 inches in diameter for the five and seven passenger cars. These and the dash lamps also are placed higher than before, thus adding to the appearance of the machines and also affording better illumination by throwing the rays a greater distance forward of the car.

week, exceeded all previous gatherings both in numbers and enthusiasm, for the Firestone company has enjoyed a rapid growth and has attained a proud position in the tire industry. The accompanying photograph, taken on the site of the new Firestone plant, which will include the largest single building in the world devoted to tire manufacture, portrays those who were present. They are as follows: H. E. Riker, R. E. Wolcott, F. H. Moyer, L. Greenwald, C. A. Myers, Ole Hibner, W. E. Fouse, A. W. Moore, H. L. Beers, J. P. Patterson, K. R. Corner, H. Kubler, C. H. Gerhold, P. B. Talbott, E. M. Pumphrey, M. C. Brenizer, J. W. Thomas, E. P. Palmer, L. F. Birdsong, A. L. Schavoir, O. E. Johnson, F. C. Burt, H. E. Esterly, F. W. Telford, R. L. Harpham, F. M. Moore, G. M. Martin, Geo. Eckel, P. F. Rohrbacher, C. M. Folger, G. A. Talbott, W. H. Jenks, N. B. Burwell, H. W. Makley, W. F. Ridge, W. G. Bedford, R. D. Barr, R. W. Phelps, R. W. Ingersoll, J. F. Cast, Wm. O'Neil,

The new factory is to be completed in February. In addition to being of record-breaking size and capacity, its equipment will be composed of the latest appliances.

### Washington Adds Taxes to License Fees.

Although in New York state and in the majority of other states which have introduced the license system for automobiles, the license fees are considered as paid in lieu of other taxes on the value of the machine, the state of Washington is preparing to collect regular property taxes in addition to license fees from the unlucky automobile owners living within its borders. Dating from October 1st, all applications for licenses must be made to the assessors' office, instead of at police headquarters. By this shrewd move the state officials connected with the former department expect to get a better line on the several hundred cars on which no taxes were collected this year, because the assessors never could locate the owners in time to collect.



## MOTOR BUSES IN MALAY SERVICE

As "Feeders" to the Federated States Railways They Prove Advantageous—Suggestive Experience Gained.

Commercial motor service in the Malay Peninsula has reached a far greater degree of development than is generally known among Americans, except those interested in the culture of rubber. An extensive service of motor mail wagons and motor buses has been in operation there since late in 1906, according to A. E. Meaden, an English engineer who has spent several years in the service.

All the Malay states have finally been federated under British protection, although 25 years ago they were little more than virgin jungle. Much of the advancement should be credited to the Railway department, which is said to compare favorably with any railroad east of Suez. The omnibuses are used mainly in connection with the principal passenger trains, being operated by native drivers who are skilful handlers although not natural mechanics.

The first cars put on were 18 horsepower vehicles, with single decks and covered an average of about 64 miles a day, except during holidays and Chinese fetes, when the mileage was greatly increased. Previously the manner of conveyance to the estates of many planters was by bullock carts and pony gharries. Of course, the bullock men cut their tariff savagely, but owing to their slowness the motor vehicles soon had a monopoly on quick transit goods. Many natural obstacles were speedily encountered. During the period of heavy rains, the first three months in the year, land slides and falling trees proved so numerous that a full equipment of saws, axes and shovels had to be carried.

In some sections it was found necessary, owing to the narrowness of the road, and its sharp turnings, to run on a regular time table, so as to have the passing points at safe places. In some places that arrangement still prevails. The 18 horsepower cars first used were in certain districts soon replaced by 30-40 horsepower cars, seating 25 passengers. As a rule they make 10 miles an hour over the hard roads. In Pahang where a service of motor lorries was established last October the receipts were seriously reduced by the necessity of returning the lorries empty on the return journey, little coming out of the state except tin ore, which, not being perishable, goes mostly to the bullock man. Rubber raising, however, will within a few years completely change the situation.

All the repairs are made at the central locomotive works shops of the Railway department. It has been found that the average service given by cars between

periods of repair is about 15,000 miles, although the range is from 10,000 to 22,000 miles, according to the surface of the roads. Most of the repairs necessary consisted of adjustments and renewals of worn chassis parts, such as spring pins, clips, radius-rod pins and double eyes, but in few instances was any serious defect apparent in the speed or differential gears.

The engine parts gave little trouble, and, with the exception of some damage to light engines by heavy loads on stiff gradients, they required little in the way of heavy repairs.

The Chinese and Tamils (South Indians) form the mechanical element among the native laboring population. The former have the energy and the latter the intelligence. Consequently the Chinese predominate at headquarters, while the Tamils are more numerous at the out stations where their readiness in diagnosing troubles comes in handily. The Chinese are too fond of playing with the engine to become good drivers.

The running sheds at out-stations are of steel-girder construction with corrugated iron sides and roofing. Cement floors and one or two repair pits properly drained are used; a drained and cemented wash for cars is made outside all the sheds. If the town or village has a water supply, stand-cocks are fitted and the water for washing and filling is obtained from the town supply. In all other cases, wells have been sunk as close as possible to the sheds.

The road surfaces differ greatly in various parts of the country. On the Selangor side of the Pahang trunk road, white granite, quarried from the sides of the roads, has been used throughout. On the Pahang side, blue shale has been obtained from the gold mines of Raub, and, although that material insures a beautiful surface, it is dusty in dry weather and slippery in wet.

The sharp-pointed metal from the white limestone appears after heavy rains have washed away the loose top dressing. Such roads are slippery after heavy rainfalls, and are certainly hard on tires, owing to the chipping and the pinching of the rubber. In the Selangor Valley, red laterite makes a smooth surface, but wears away rapidly, and accounts for excessive dust in the dry weather and slippery mud in the wet. Such fine dust and mud are particularly destructive to bearings and wearing parts, and the use of tire brakes is entirely prohibited. The life of the rubber tires depends, of course, on the nature of the roads. On the Pahang service there are 21 miles of 1 in 30 gradient, on which there are innumerable corners involving constant braking. All this road is heavily rain-washed, and the life of the endless tires only averaged about 6,000 miles. Under such conditions "grip" tires proved themselves absolutely useless; even on a 16 horsepower vehicle they were unsatisfactory, constantly creeping on the rims

and cutting away at the flanges. On the level but rain-washed roads of Perak, with the sharp limestone and flint all bare, an average of 10,000 to 12,000 miles was the rule. On the red-laterite highways, between Klang-Kuala and Selangor, a life of 22,000 miles was frequently secured. No satisfaction was obtained from grip-pattern tires on vehicles of more than 3900 pounds gross weight. Pneumatics for front wheels were found advisable on light vehicles; they wore as long as the solids on the rear wheels, and saved any amount of money by the reduction of wear and tear from road shocks upon the chassis parts. Stud-pneumatic covers showed no longer life than plain ones.

Taking everything into consideration, says Mr. Meaden, the average cost of running was about 36 cents a car mile. Most of the expenditure went in tires; it has also to be remembered that the lubricating oil consumption was necessarily heavy for the exceedingly long gradients. Petrol, even when purchased in bulk, could not be obtained under 50 cents. So many different types of machines being in service, a heavy spare-part stock had to be maintained, and this involved an additional charge on the maintenance account.

In making recommendations as to this class of service Meaden in the Commercial Motor favors cars of from 30 to 40 horsepower, and says the ordinary home wheel bases have proved satisfactory. A four cylinder engine is preferable as the ordinary native can bring such a car home if only two or three cylinders are working. A low tension magneto is the best type of ignition, for it is simple to understand. The multiple disc type of clutch proved satisfactory on many vehicles. The lock on the front wheels must be of wide angle and equal on each side. Leather clutches have been used, but great difficulty has been found in obtaining satisfactory leather for renewals.

With regard to gears, little trouble was experienced, and, in some cases, wonderful wearing qualities were displayed. After 22,000 miles, some of the gear wheels showed hardly any sign of wear. For the heavier machines, chain transmission was employed. Experience with radiators went to prove that the gilled-tube type, with top and bottom headers, was the correct thing. The honeycomb cooler, as a rule, was too heavy, was liable to leak through vibration, and was practically impossible to repair, as the natives were without the experience to carry out such specialized jobs. There was never found any serious overheating trouble, although the sun temperature is, as a rule, between 140 and 170 degrees Fahrenheit. Too much importance cannot be attached to the necessity of driving the pump independently of other mechanism. In cases where the pump was driven off the same spindle as the magneto there was endless trouble.



### SHERIFF STEPS IN AT SAGINAW

**Attaches Office Fixtures of Lovely Co-Operative Company—And Simply Because Stock Salesmen Seek \$1,900.**

Apparently that spirit of co-operation which was to constitute the mainspring of the Buick Auto Supply & Garage Co., of Saginaw, Mich., did not sink deep into the hearts of Gordon Grant and B. G. Appleby, who had to do with that magnificent and all-compassing project. As, of their own free will and despite inspiring pictures painted by the company's literature, automobile owners did not rush in overwhelming numbers to subscribe for the stock of the enterprise, Grant and Appleby were engaged to beard the owners in their homes and offices and to emphasize the beauties of such a co-operative institution that the necessary subscriptions and the cash incident thereto should be forthcoming. The two men worked on a commission basis and when, as they allege, they had earned \$1,900 and their demands for it produced no results they called the law to their assistance, and last week the sheriff seized the furniture and fixtures of the company's office in Saginaw.

The sheriff's action will prove in the nature of a shock to very many persons; for of the countless co-operative and other schemes to which the word "auto" has been attached few if any proposed to do so much for so little as the Buick Auto Supply & Garage Co. About a year since the parent company was incorporated under the laws of Maine, which are so generous that there is no need for a showing of much real money or property. The parents, however, were located in distant Michigan and they purposed organizing sub-companies in every state, or nearly every state, in the Union, and they actually did form one in Michigan—the one whose office equipment has been attached.

In addition to opening the office in Sag-

inaw, the company also had drawn the plans and a pretty picture of "the largest garage in the world." It was to be but one of many that was to dot the countryside, and at each of them or any of them local residents or tourists who were so fortunate as to have become stockholders, would be able to store their cars and have them repaired and to buy supplies at such prices that must have made all un-co-operative establishments curl up and die. And of course the stockholders would share the handsome dividends, also.

It was a beautiful picture that was painted and to add to its irresistibility the stock of the company was offered for sale in blocks of 10 shares at 50 per cent. discount; its par value is \$10, but it was so lovely that any appreciative individual could purchase it for \$5. It was this "good thing" that Gordon and Appleby were engaged in selling and of which they had sold enough to make them so mercenary as to cry out for the \$1,900 which they claim to have earned and to ask the sheriff to help them collect it.

### Court Sets Date for Selden Appeals.

On Monday, last, 10th inst., the U. S. Circuit Court of Appeals for the Second Circuit heard a motion to give preference to the hearing of the appeal in the suits under Selden patent against the Ford Motor Co. and Panhard company and the test suits. The court inclined favorably, and accordingly set these cases at the head of the Court of Appeals' calendar for hearing November 9th, 1910.

In the case of the injunction under Selden patent against John Wanamaker, a motion was brought by the defendant to suspend the injunction, but this was opposed and Judge Hough denied the application, so that the injunction continues in force.

### Briscoe to Sail for European Sojourn.

Benj. Briscoe, president of the United States Motor Co., will sail next Wednesday to Europe on pleasure bent. He will be absent about six weeks.

### SELLING GENERAL MOTORS NOTES

**Wall Street Sets Price and Offers a Bonus—Additional Details Bring General Motors' First "Show-Down."**

In marketing the \$15,000,000 worth of General Motors' notes, not to mention the \$5,000,000 worth which is held in reserve, it appears that the Wall Street interests which advanced the loan and assumed control of the embarrassed \$60,000,000 company, are to make plentiful use of the abundant common stock, which the company itself employed when it was deemed desirable to impress the investing public by "cutting a melon." According to authentic information, there is no underwriting price on the notes, but they are being offered at 96 and interest with a bonus of common stock, which bonus in the case of those who "buy right" reaches as high as 20 per cent.

According to the plan sinking funds of \$1,500,000 each for 1911 and 1912, and of \$2,000,000 each for 1913 and 1914 will be set aside to go toward the retirement of the notes. The \$15,000,000 will be secured through deposit with the Central Trust Co. of mortgage notes and shares of stock of subsidiaries, representing total assets of \$37,383,000.

Recently some additional preferred and common stocks were distributed among the General Motors Co.'s subsidiaries so that with the present note issue, its outstanding capitalization will be as follows: \$15,000,000 first lien 6 per cent. notes, \$17,835,400 7 per cent. cumulative preferred, and \$20,374,030 common stock, making a total of \$53,209,430 out of an authorized aggregate of \$80,000,000. Real estate, plants and equipment, exclusive of good will, etc., are valued at \$12,127,000, and current assets at \$25,256,000. The mortgage provides that "net quick assets" must never be less than 133⅓ per cent. of the notes outstanding, and with Wall Street mathematicians in control the

provision would seem in small danger of being unfulfilled at any time.

In connection with the launching of the new note issue, the exact composition and the exact amount of holdings of the General Motors Co. in its subsidiary companies was made public for the first time. It has 20 subsidiary companies with a total of \$550,000 preferred and \$15,440,710 common stock, of which the General Motors Co. owns \$498,500 preferred and \$13,845,383 common. The Buick Motor Co. has outstanding \$500,000 preferred and \$2,000,000 common stock, of which the General Motors Co. owns all the common and \$498,500 preferred. It also owns all the \$1,500,000 outstanding stock of the Cadillac Motor Car Co., the \$3,132,200 outstanding stocks of the Olds Motor Works; the \$793,000 stock of the Marquette Motor Co.; the \$800,000 stock of the Oakland Motor Car Co.; \$552,720 common stock of the total outstanding \$50,000 preferred and \$557,720 common of the Cartercar Co.; \$364,650 of the outstanding \$500,000 stock of the Rapid Motor Vehicle Co.; all of the \$725,000 stock of the Northway Motor & Manufacturing Co.; all of the \$600,000 stock of the Elmore Manufacturing Co.; \$474,223 of the \$481,200 stock of the Reliance Motor Truck Co.; all of the \$275,000 stock of the Welch Co. of Detroit; \$747,000 of the \$1,500,000 stock of the Weston-Mott Co.; \$299,400 of the \$399,400 stock of the Randolph Motor Car Co.; all of the \$224,000 stock of the Welch Motor Car Co. of Pontiac; all of the \$240,000 stock of the Jackson-Church Motor Co.; all of the \$100,000 stock of the Michigan Motor Castings Co.; \$75,000 of the \$100,000 stock of the Champion Ignition Co.; \$50,000 of the \$1,003,000 stock of the Michigan Auto Parts Co.; all of the \$10,000 stock of the General Motors Co. of Michigan, and \$133,000 of the \$200,000 stock of the Oak Park Power Co.

The new financing, it is stated, will leave the company with about \$23,000,000 current assets and \$3,000,000 cash.

#### Stearns Company Doubles Its Dividend.

Directors of the F. B. Stearns Co., Cleveland, Ohio, manufacturers of Stearns motor cars, have declared a dividend of 25 per cent., as against 12 per cent. the preceding year. The following officers and board of directors have been elected: F. B. Stearns, president; R. F. York, vice-president; E. McEwen, secretary and treasurer. Philip Wick has been elected director, succeeding his father, the late Myron C. Wick, of Youngstown, Ohio.

#### Canadian Goodyear to Absorb a Rival.

According to reports from Toronto, the Goodyear Tire & Rubber Co. of Canada, Ltd., is about to take over the Durham Rubber Co., which operates a plant in Bowmanville, Ont. It is expected that the deal will be consummated some time this week.

## AMERICA IS DISCOVERED AGAIN

### This Time Wearing a Selden Tag on Broadway and Purchasable on Instalments

—A. L. A. M. Prepares to Sue.

Whether or not purchasers of motor cars made by a licensed manufacturer and bearing the Selden license plates have the legal right to "rechristen" such cars with names of their own choosing and sell them without making plain the sources of the cars' origin, is a point which probably will be settled by a suit which the Association of Licensed Automobile Manufacturers is about to file against the Motor Car Co. of America, of New York. The fact that the A. L. A. M. is making ready to take action leaves no doubt about the opinions of its legal advisers, whose purpose it is not merely to sue the New York concern for infringement of the Selden patent but for unfair competition also.

The Motor Car Co. of America established itself several weeks since at Broadway and 73d street in a room so small that did it contain an automobile there would not be space for much else. No automobile was in sight, however. A sign on the window heralding the "America 40," "Licensed under the Selden patent," and a desk and a few chairs and a supply of catalogs within is practically all that is visible to the eye. The catalog, which bears the imprint of two American flags, also bears the "Licensed under the Selden patent" caption, and the most remarkable part of it is that the pictures of the three cars, an engine and an unlabeled factory building—to which no reference is made—which it contains were not made from photographs or drawings, but from pictures which had appeared in other publications.

The fact that the "America 40" never before had been heard of inside or outside the ranks of the Selden organization, was sufficient to arrest the notice of the New York trade. But what most appealed to the prospective purchaser who dropped in the little place of the unknown concern with the large name was the information that he could obtain an "America 40"—"licensed under the Selden patent"—on the instalment plan.

Secure in the knowledge that the "America 40" came from the factory of the W. H. McIntyre Co., at Auburn, Ind.,—a Selden licensee—one of the Motor World's "prospective purchasers," to whom strange concerns and instalment sales always appeal, dropped into the cubbyhole of the Motor Car Co. of America on Monday last and learned some things that will cause even the McIntyre company to gasp for surprise. After the usual preliminaries common to "prospective purchasers," the Motor World man asked:

"How is it that the name 'America' does not appear in the list of licensed cars? Is it not likely that I may have trouble on that account?"

"Not at all—not at all! When the car is delivered to you, you will find a license plate on it, showing that the makers have paid the royalty. It doesn't make any difference what name appears on the car. I can put 'John Jones' on the car, if I want to and it would still be licensed."

"Oh, I see," remarked the "prospective purchaser." "You mean that the car is manufactured by a member of the A. L. A. M. but marketed under a 'pseudonym.' But why is that necessary?"

"Well, you see, it's this way: The factory making this car are good manufacturers, but they haven't made much success in selling their product. We took over the entire selling end of it, and not a piece goes out of the factory, nor does any material come in, that this office does not have to arrange for. We have contracted for the entire output, but we really do not make any effort in this office to sell cars direct to the public—we haven't even a car here to show you; but we appoint agents, and if an interested person like you comes in, well, we can make arrangements for a demonstration."

"How much did you say the torpedo model of forty horsepower costs?"

"We charge \$2,250 for it."

"And is there a guarantee with it?"

"Yes. We give you a full year's guarantee on each car."

"That's very nice, I'm sure; but what is to prevent you from repudiating the guarantee afterward, or not living up to it? You see this is only a 10x12 office; there is no real estate, factory or other such security behind your guarantee, and how do I know that you will be here four weeks from now? Of course, I don't mean to doubt your statements, but the guarantee does not seem to amount to much when I do not even know who makes the car."

"That's the chief reason why we allow you to pay for the car in instalments. You pay about one-half cash down, and we let you pay us the rest in monthly instalments of about 10 per cent. each; for instance, you pay us \$1,150 down and \$110 per month for ten months. We couldn't do this if we were afraid the car wouldn't last a year without giving trouble."

"I was told that this car is made by the McIntyre company," boldly ventured the Motor World man. "Is that so?"

"McIntyre? McIntyre? Never heard of the name before. Do they make automobiles?" in turn queried the Motor Car Co. of America with an air of innocence that was not short of charming.

The assurance that they did so, and that they had been doing so for several years, did not cause the manager to blink an eyelid. He reiterated his statement that he did not know the McIntyre company.

## EXPORTS STILL GOING UPWARD

**All but Two Foreign Markets Increase Their August Demands—Great Britain the Biggest Buyer.**

Despite the waning of the export "season," the upward tendency in the figures showing the exports of American made motor cars during August, 1910, still is plainly in evidence. With the exception of France and Bermuda, every one of the 12 geographical divisions took a greater number of cars than in the same month of the preceding year. Although the rise in the actual value of exports is greatest in the case of the United Kingdom, it is the gratifying increase shown by Germany and Other Europe which is most significant and encouraging. Germany took \$49,334 worth, as compared with \$11,923 worth in the same month of the preceding year, an increase of over 313 per cent., while Other Europe accounted for \$69,075 as against \$23,205 in August, 1909, an increase of over 197 per cent. The greatest actual increase was shown by the United Kingdom, which bought \$205,007 worth, which is a gain of over 97 per cent. over the figures of August, 1909, which were \$103,880. The total number of cars exported in this month was 656, valued at \$897,322, as against 368 cars, valued at \$557,934 in August, 1909.

Consistent with the continued increase shown in the single months, the figures for the eight months ending August, 1910, show a decided gain over the same period of 1909. Here also the greatest actual gains are made by the two great English speaking countries, the United Kingdom and Canada, the former taking \$2,286,984 worth as compared with \$1,612,726 in 1909; while Canada accounted for \$3,889,539 as against \$1,746,453. Although these were the greatest actual gains recorded, they were not heading the list in proportionate increases. First place herein belongs to Other Asia and Oceania, which took \$280,961 worth, representing a gain of over 400 per cent. over the \$70,107 worth exported last year.

The report in detail:

	August		Eight months ending August		
	1909	1910	1908	1909	1910
Automobiles, and parts of—					
Automobiles .....	\$557,934	\$897,322	\$3,569,962	\$5,107,953	\$8,266,808
Parts of (not including tires) .....	100,622	136,437	434,849	526,492	1,408,495
Exported to—					
United Kingdom.....	103,880	205,007	1,491,465	1,612,726	2,286,984
France .....	78,693	15,699	526,323	739,764	613,737
Germany .....	11,923	49,334	138,039	151,711	284,772
Italy .....		7,510	219,229	214,345	347,629
Other Europe.....	23,205	69,075	169,350	267,086	593,450
Canada .....	306,523	398,825	866,604	1,746,453	3,889,539
Mexico .....	21,564	70,492	202,774	294,286	431,594
West Indies and Bermuda.....	28,198	23,293	111,578	203,646	270,638
South America.....	30,256	60,443	86,179	125,978	286,651
British Oceania.....	30,969	68,212	50,504	137,766	262,495
Other Asia and Oceania.....	14,416	46,806	98,732	70,107	280,961
Other countries.....	8,929	19,063	44,034	70,577	126,853
Total.....	\$658,556	\$1,033,759	\$4,004,811	\$5,634,445	\$9,675,303

## Imports Still on the Toboggan.

Accompanied by a big drop in the value of parts, not including tires, the imports of foreign automobile products for the month of August last reveals a decline in the total figures of from \$448,933 to \$206,143, as compared with the returns of last year. The parts totals have decreased from \$114,973 to \$9,469. Only 92 complete cars were imported, as compared with 194 during August, 1909, the most noticeable decline being in the case of France, the largest contributor, which sent over only 36 cars this year as against 109 last. Italy sent in 30 cars, as against 52; the United Kingdom five, as against eight, and other countries, excepting Germany, 11 as against 16. The German manufacturers disposed of 10 cars during the month, as compared with nine in August a year ago. Figures for the eight months ending with August 30th graphically show how the import trade is shrinking: But 726 cars were imported, 1,058 being the corresponding total for last year. The total value of cars and parts fell from \$2,502,574 to \$2,008,276.

## R. E. Olds Forms Big Truck Company.

To produce a motor truck which he has had in daily use for some time, R. E. Olds, of the Reo Motor Car Co., has organized a separate company, the Reo Motor Truck Co., which on Saturday last was incorporated under the laws of Michigan with \$1,000,000 stock, of which Mr. Olds himself holds 49,998 shares of a par value of \$10 each. The new company already has acquired a disused stove plant in Lansing which it is remodeling and re-equipping for its purposes. The Reo Motor Car and the Reo Motor Truck companies will work in close relation, the office force of the former handling the truck business and the R. M. Owen Co., which markets the Reo cars, performing the same service for the trucks. In addition, the old company is turning over to the Truck company all the parts business pertaining to its one and two cylinder cars, which last year amounted to \$468,743.40, gross, and which, it is stated, "is sufficient to return a good income on the stock of the company exclusive of truck possibilities."

## COULD NOT FIND ROOM FOR ALL

**Applicants for Space at Chicago Crowded Out—Those Who Are in and Where They will be Located.**

Of the 101 manufacturers of pleasure cars—a record-breaking number—who applied for space at the Chicago show, January 28-February 4 (the first week), the National Association of Automobile Manufacturers were able to find room for but 96 at the allotment last week. The five who were of necessity left out may be able to obtain positions in Chapter II of the show which will occupy the following week and which will be devoted to commercial vehicles. There were 42 applicants in the commercial vehicle section who took about 80 per cent. of the main floor of the Coliseum. There were also five whose applications arrived after the date of closing who will occupy practically all of the remainder of the floor.

All of the gallery of the Coliseum and second floor of the Coliseum Annex has been taken by members of the Motor and Accessory Manufacturers, leaving only the gallery of the First Regiment Armory for other makers of accessories. Of these it is possible to take care of about 40; the remainder of the applicants are now on a waiting list.

Applications from makers of commercial vehicles for such space as remains in the Coliseum and in the Armory will be received up to October 31st. A section will be set aside for motorcycles and the remaining space, if any, will be allotted to makers of pleasure vehicles, starting with those who were unable to obtain space during the first week of the show.

The applicants who were allotted space during the first, or pleasure car, week, and the building in which they will be housed, are as follows:

## Coliseum.

Winton Motor Carriage Co.  
 Buick Motor Co.  
 Stevens-Duryea Co.  
 Chalmers Motor Co.  
 National Motor Vehicle Co.  
 Pierce-Arrow Motor Car Co.  
 Moline Automobile Co.  
 Hudson Motor Co.  
 Lozier Motor Co.  
 Reo Motor Car Co.  
 H. H. Franklin Mfg. Co.  
 Olds Motor Works.  
 Packard Motor Car Co.  
 Thomas B. Jeffery Co.  
 F. B. Stearns Co.  
 E-M-F Co.  
 Cadillac Motor Car Co.  
 Peerless Motor Car Co.  
 Maxwell-Briscoe Motor Co.  
 Willys-Overland Co.  
 Pope Mfg. Co.  
 E. R. Thomas Motor Co.  
 Locomobile Co. of America.  
 Dayton Motor Car Co.

Woods Motor Vehicle Co.  
Columbia Motor Car Co.  
Atlas Motor Car Co.  
Premier Motor Mfg. Co.  
Knox Automobile Co.  
White Company.  
Matheson Motor Car Co.  
American Locomotive Co.  
Baker Motor Vehicle Co.  
Corbin Motor Vehicle Corp.  
Elmore Mfg. Co.  
Haynes Automobile Co.  
Metzger Motor Car Co.  
Mitchell-Lewis Motor Co.  
F-A-L Motor Co.

#### Coliseum Annex.

Brush Runabout Co.  
Studebaker Bros. Mfg. Co.  
Nordyke & Marmon Co.  
Inter-State Automobile Co.  
Jackson Automobile Co.  
Bartholomew Co.  
Babcock Electric Carriage Co.  
Apperson Bros. Automobile Co.

#### Coliseum Basement.

Southern Motor Works.  
Great Western Automobile Co.  
Metz Company.  
F. A. Paterson Co.  
Ohio Electric Car Co.  
Enger Motor Car Co.  
Benz Auto Import Co.  
Cole Motor Car Co.  
Westcott Motor Car Co.  
Diamond Automobile Co.  
Otto Gas Engine Works.  
Middleby Automobile Co.  
Lexington Motor Car Co.  
The Carriage Woodstock Co.  
B. C. K. Motor Car Co.  
Rayfield Motor Car Co.  
McFarlan Motor Car Co.  
Parry Automobile Co.

#### First Regiment Armory.

Hupp Motor Car Co.  
Waverley Co.  
Dorris Motor Car Co.  
Kissel Motor Car Co.  
Selden Motor Vehicle Co.  
W. H. McIntyre Co.  
Pierce Motor Co.  
American Motor Car Co.  
Cartercar Co.  
Austin Automobile Co.  
Garford Company.  
Royal Tourist Car Co.  
Anderson Carriage Co.  
Moon Motor Car Co.  
Pullman Motor Car Co.  
Buckeye Mfg. Co.  
Speedwell Motor Car Co.  
Fiat Automobile Co.  
Diamond T. Motor Car Co.  
Auburn Automobile Co.  
Streator Automobile Co.  
Simplex Motor Car Co.  
Black Mfg. Co.  
Rauch & Lang Carriage Co.  
Ohio Motor Car Co.  
Courier Car Co.  
Midland Motor Co.  
Chadwick Engineering Works.  
Staver Carriage Co.  
Schacht Motor Car Co.  
C. P. Kimball & Co.

The manufacturers who obtained space during the second, or commercial vehicle week of the show, are as follows:

Mack Bros. Motor Car Co.  
Mais Motor Truck Co.  
The United States Motor Truck Co.  
The White Company.

Hart-Kraft Motor Co.  
Studebaker Bros. Mfg. Co.  
Alden Sampson Mfg. Co.  
Courier Car Co.  
Peerless Motor Car Co.  
Packard Motor Car Co.  
W. H. McIntyre Co.  
The Waverley Co.  
Reo Motor Car Co.  
Willys-Overland Co.  
Cartercar Co.  
Grabowsky Power Wagon Co.  
The Garford Co.  
Avery Co.  
The Pope Mfg. Co.  
American Locomotive Co.  
Rapid Motor Vehicle Co.  
Pierce-Arrow Motor Car Co.  
Metzger Motor Car Co.  
H. H. Franklin Mfg. Co.  
Knox Automobile Co.  
Kissel Motor Car Co.  
The Gramm Motor Car Co.  
The Kelly Motor Truck Co.  
Harder's Fire Proof Storage & Van Co.  
Adams Bros. Co.  
Randolph Motor Car Co.  
Chase Motor Truck Co.  
Saurer Motor Trucks.  
Chicago Commercial Car Co.  
Lansden Co.  
Federal Motor Truck Co.  
Automobile Maintenance & Mfg. Co.  
Washington Motor Vehicle Co.  
Economy Motor Car Co.  
Marquette Motor Vehicle Co.  
Monitor Automobile Works.  
Clark Delivery Car Co.

#### Day Brings "Utility" Car to Detroit.

Taking its name from its president, Thomas W. Day, who at one time sold Locomobiles in the West, and who is the designer of the car that will be produced, the Day Automobile Co. has been organized in Detroit, Mich., with \$300,000 capital stock. Hugh Jennings, manager of the Detroit baseball club will be vice-president of the company, while Cameron F. Roberts, general auditor of the Cincinnati Discount Co., will be secretary. Wallace E. Brown, president of the Michigan Gas Mantel Co., is among the others interested. The company will manufacture a "utility" car—one having convertible or removable seats which will permit the vehicle to be used for either pleasure or business purposes. It will employ a four cylinder, 21 horsepower engine and will be placed on the market for \$1,000.

#### Keeton Securities Co. Asserts Itself.

The referee in bankruptcy has granted the application of the trustee of the Croxton-Keeton Motor Co. for authority to dispose of the plant at Massilon, Ohio, at his convenience and meanwhile to continue its operation and complete the unfinished cars on hand. Several of the prominent creditors who believe that the property should be immediately disposed of were granted the privilege of filing an exception and appealing to the higher court. At the creditors meeting at which this action was taken, it developed that there is in existence the Keeton Securities Co., of New York, which owns such patents as were em-

ployed, and that before the trustee can dispose of any of the cars he may make up, arrangements for the payment of royalty must be completed with the Securities company.

#### How Goes the "Independent" Show.

According to Herbert Longendyke, who with C. C. Conant, of Troy, N. Y., is the active man in the American Motor Car Manufacturers Exhibit Association, which is promoting the "independent" show to be held in Grand Central Palace, New York, Dec. 31-Jan. 7, 37 manufacturers of cars already have contracted for space and nearly 60 per cent. of the entire available room has been apportioned. Longendyke promises "there will be nothing small or cheap about the show," on which "a cash outlay close to \$50,000 will be made before the doors are opened." He has issued invitations to the trade press to join him at a luncheon in the Automobile Club of America's restaurant on Thursday next, 20th inst.

#### Topeka May Lose the Smith Factory.

Unless the citizens of Topeka, Kan., "step up to the captain's office" and subscribe for about \$75,000 worth of a new stock issue, that city is liable to lose the Smith Automobile Co. That company has the necessary equipment to double its output, but it needs more money to enable it to do so and to keep going. To that end, the Smith principals have proposed to reorganize the company under Kansas laws—it now is a Missouri corporation—and increase its capitalization to \$1,000,000. If the citizens will advance \$75,000 it will be viewed as a loan which will be paid for with shares in the reorganized company on a basis of four for one. The Topeka Commercial Club is dealing with the matter and already has raised funds to the amount of something like \$45,000.

#### McQuaid Sues and is Sued in Turn.

James Addison, treasurer of the Berkshire Motor Car Co., Pittsfield, Mass., and Stuart Clapp, its general manager, have brought suit against John McQuaid for \$25,000. The action grows out of the sale of McQuaid's interest in the company to the two plaintiffs and is in the nature of a counter suit, McQuaid previously having sued them for \$11,000 alleged to be the balance due of the purchase price.

#### Seven More Join Credit Association.

At its last meeting the Automobile Trade Credit Association elected to membership the following applicants: Connecticut Tel. & Elec. Co., Meriden, Conn.; Fletcher & Co., L. V., New York City; Gibbes Machinery Co., Columbia, S. C.; Martin-Evans Co., Brooklyn, N. Y.; Morrison-Ricker Mfg. Co., Grinnell, Iowa; The Sireno Co., New York City; Wenz-Ludy Equipment Co., Brooklyn, N. Y.



## IN THE RETAIL WORLD.

Quant & Pierson have engaged in the automobile business in Mapletown, Iowa.

Gilmore City, Ia., has its first garage. H. W. Heath has just finished building it.

A new garage has been opened on North Barron street, Dayton, Ohio, by F. R. Christman.

The Maxwell-Briscoe Chicago Co. has certified to a change of name to the United States Motor Chicago Co.

The San Jacinto Garage, in the California town of that name, has been sold to M. L. Baisley. It formerly was owned by W. D. Jacobs.

The Oakland Sales Co. has been organized in Detroit, Mich., with headquarters at 742 Woodward avenue. A. L. Zeckendorf is the manager.

Under the style the Burd Auto Co. a new concern has started business in Grundy Center, Ia. It will do general repair and garage work.

E. L. Bailey, of Dundee, N. Y., is building a garage on Main street. It will be 36 x 100 feet, of concrete and terra cotta, and one story high.

O. L. Early, dealer in automobiles and accessories in Earlham, Iowa, has made an assignment of his stock to E. M. Crosswait, of the same town.

Joseph Oschwaid is building a garage at 418 Washington street, Newark, N. J. The structure will be three stories high, of brick, and will cost \$20,000.

J. Stewart Allen has purchased the City Garage in South Fourth street, Springfield, Ill., from Frank Smith. He will show Hudson, Hupmobile and Benz cars.

Rambler cars will form the mainstay of the Williams Garage, which has opened its doors in Waukegan, Ill. Henry Williams, of Kenosha, Wis., is the manager.

Chas. E. Hall & Sons, of Malden, Mass., have opened a garage in that town on Summer street. The building has more than 10,600 square feet of floor space.

Arkadelphia, Ark., soon will have another garage in "its midst." W. L. Fodrea, formerly connected with the Carter Automobile Co., of Little Rock, is building it.

Bert Richards has purchased a half interest in the Cadillac Motor Co., which has salesrooms at 304 Barnes block, Wichita, Kan. T. C. Cowley is the other partner.

Arnim C. Blankenburg, of Fond du Lac, Wis., and Frank E. Hallman, of Norris-town, Pa., have formed a partnership and opened a modern garage on the Isle of Pines, Cuba.

Temporary quarters have been established at the corner of Ninth and Nicollet streets, Minneapolis, Minn., by R. W. Munzer & Sons. They will specialize in Oldsmobile cars.

The old Heurich Brewery in 20th street,

Washington D. C., has been purchased by the Terminal Taxicab Co. for a sum of \$50,000. The buildings will be remodeled for garage purposes.

Under the management of John F. O'Toole, a branch has been opened in Atlanta, Ga., by the F. B. Stearns Co., of Cleveland, Ohio. Temporary headquarters are at 34 James street.

O. A. Jones, of Chicago, Ill., has gone into the garage business in Minneapolis, Minn., where he will sell Stanley steamers. His headquarters are at the Gavin Garage, 1900 Lyndale avenue, south.

The Elmore car has entered Des Moines, Ia., where it will be handled by D. C. Korn. He has established his headquarters at 612-614 Mulberry street under the style the Elmore Auto Co. of Des Moines.

David S. Kendricks, formerly of the firm of Barnes & Kendricks, has gone into business himself and established himself at the Central Garage, Washington, D. C. He will handle the Thomas line.

W. G. Parker, of Troy, N. Y., has sold his garage and contents to Burdick & Hartwell, of the same city, and quit the business. The garage will be continued under the management of Joseph Z. Lafave.

The firm of Coughlin & Davis, dealers in automobile supplies at Seventh and Walnut streets, Cincinnati, Ohio, has dissolved partnership by mutual consent. A. C. Davis will continue the business in his own name.

With S. T. Mallory, Harry Davis and W. H. Karr as the moving spirits the White Steamer Co. has been formed at Muskogee, Okla. As indicated by the name, White steam cars will be featured by the new concern.

Hugh R. Fisher, formerly secretary of the Atlanta Buggy Co., has gone into business on his own account and opened an agency for Whiting cars. His offices are in the Fourth National Bank building, Atlanta, Ga.

The Albertson Motor Car Co. is the style of a new concern which has opened salesrooms at 1527 Grand avenue, Kansas City, Mo. Fred Albertson is the manager of the company, which will feature the Marmon line.

The Keeler-Hupp Co., of Detroit, Mich., has been dissolved and the Hupp Motor Co. succeeds to its business. As the name indicates, Hupmobiles will be handled in its salesrooms, which are located at 730 Woodward avenue.

The Inter-State agency for Western Pennsylvania has been taken over by the Pittsburg Inter-State Co., which just has been organized for the purpose. The temporary headquarters of the company are at 5706 Penn avenue, East End.

Styling themselves the Charles B. Benton Co., C. B. Benton, chief tester for the Stearns company, and D. F. Jones, also of

the Stearns factory, have opened a garage and repair shop in Cleveland, Ohio. It is located at 1851 East 65th street.

F. D. Bennett and William T. Buck have formed a partnership and purchased the three-story building on East Main street, Freehold, N. J., belonging to the Bennett estate. They will remove the present building and erect an up-to-date garage on the plot.

John Muldoon, president of the recently formed Motor Transportation Co., of Chicago, Ill., has leased the property at the northeast corner of Lake and Curtis streets, where he will erect a large garage. The structure will be 100 x 100 feet, and will cost \$11,000.

R. H. Magoon and W. S. Cramer, of Minneapolis, Minn., have purchased the business of the Moore Carving Co., which handled the Woods electrics. Until new quarters are finished they will continue to exhibit these cars at the old address, 725 Third avenue, south.

Emile Berg, of Jersey City, has bought out the interest of his partner, Jos. Rogers, in the LaReine Garage on Main street, Bradley Beach, N. J., and will continue the business in his own name. Rogers has purchased a garage in Trenton, N. J., and will go into business there.

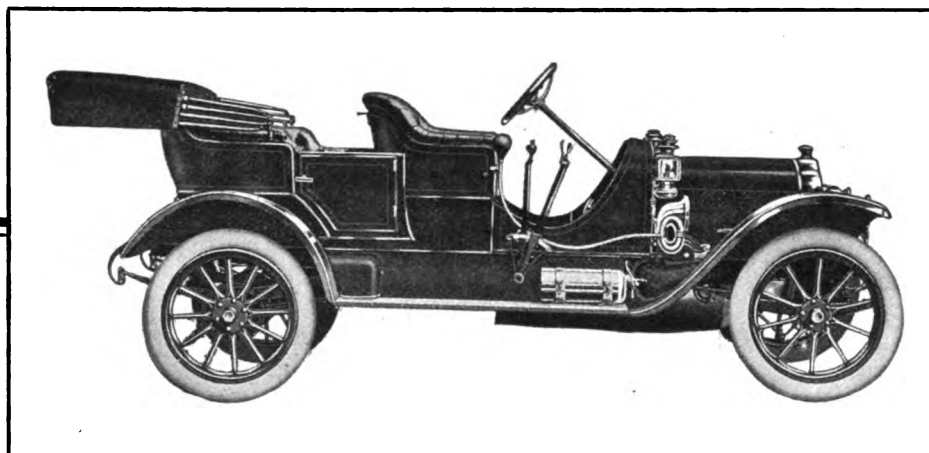
The Wheeler & Wuestefeld Co., of New Haven, Conn., has been reorganized and its stock increased to \$10,000. C. E. Wheeler has sold his interest to George B. Wuestefeld, who will continue the business in his own name. The company handles Owen and Stoddard-Dayton cars.

The Hearne Motor Car Co., of Milwaukee, Wis., has taken possession of the salesrooms and garage of the Stephenson Motor Co., at 18 Eighth street. J. E. Morehouse is the manager of the new concern, which will handle the Benz and Hupmobile gasoline cars and the Hup-Yeats electrics.

H. A. White & Co., Cadillac agents for Tennessee, have taken Aubrey B. Clapp, their salesman, into partnership and changed the name of the firm to H. A. White Auto Co. Simultaneously they have moved into more commodious quarters at 62 South Second street, Memphis, Tenn.

Under the style the Overland Co. of Kansas City, a new concern has been formed in the Missouri town of that name, with H. A. Dougherty as president and H. G. Kirkland as secretary. Its headquarters will be at 1523-1525 Grand avenue, former salesrooms of the Midland Motor Co.

The Ford Automobile Equipment Co., 1735 Michigan avenue, Chicago, Ill., has been adjudged bankrupt and the Central Trust Co. appointed receiver. It is alleged that the company has liabilities amounting to \$7,500 with little if any assets. The company has no connection with the Ford Motor Co.



## Why Pay More?

**E**XPERTS say that it is impossible to build a better auto than the White Gasoline car—they could be built larger, but no better. The size of the White car is very favorable for most uses—it has five-passenger capacity. Being moderate of size and weight, it is economical upon tires and other accessories. Having a long-stroke engine but with moderate-sized cylinders, it is economical in the use of gasoline. Being mechanically perfect and economical in operation it is moderate-priced, and leaves no occasion to pay more.

## Why Pay Less?

The original analysis of the cost of an automobile is not the original outlay for the car but the monthly outlay for up-keep. Judged by this standard, the White car is the cheapest car on the market, being a car that must most surely be economical in operation. The monthly bills for up-keep continue as long as the car lasts—the original investment comes but once.

The economical White Gasoline Car is the car for men who need to consider maintenance cost.

Many agencies now open for White Gasoline cars and truck, also steam passenger cars. Demonstrators should be bought at once for early delivery.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO



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#### The Penalty for Playing With Fire.

When a man plays with fire he has only himself to blame if he is singed. Barney Oldfield and his redoubtable manager have been playing with it for a long time and possibly the ease with which they have earned money throwing "circular dirt track records"—national, state, county, local—in the public eye has emboldened them to toy with fiercely burning fagots. In selecting a pugilistic brand and a black one, and in attempting to inject the methods of the prize ring and other rings into the sport of automobiling, they seem to have found a fagot that is just a little too hot for handling.

None can blame Oldfield for making hay while the sun shines, but the A. A. A. is right in declaring that he shall not make chaff appear hay nor introduce undesirable elements and malodorous methods into the sport to which it administers. Permanent suspension is rather too much of a penalty

to exact for the mere attempt to do that sort of thing, but if Oldfield persists, as he threatens to do, he should be placed on the other side of that pale which is indicated by permanent disqualification. The combination of Oldfield, negro pugilists, book-makers or near-bookmakers and moving picture men is something from which the public and the sport of automobiling well may be saved. It is impossible even to think of it without holding the nose. In some places, remarkable to recall, somewhat similar things are styled "barneys."

#### The Use of Motor Cars in Winter.

This is the season when reams of advice are handed out for the guidance of motorists who purpose laying up their cars for the winter. But while that practice is largely adhered to, the number of owners, particularly in the larger cities and towns, who do not put their cars away during cold weather but use them either occasionally or continuously, yearly is increasing. And there no longer is any reason, so far as the capability of the modern motor car is concerned, why it should not be as useful and effective at one time of the year as another.

So far as recreation is concerned, of course the winter months afford less attraction than the summer. At the same time in many parts of the country there are many days and even weeks during the winter, when the air is clear and bracing, the temperature not excessively low, and when general conditions render motoring as pleasant and profitable physically as it is during hot weather. The ability to take advantage of such conditions, to do away with the traditional confinement within doors that the old-fashioned winters used to enforce, is one of the privileges given to the motorist who is farsighted enough to keep his machine in working condition 12 months in the year.

When it is designed to employ the car during cold weather, however, it is well to fortify it against the rigorous conditions it is destined to encounter; it is advisable that it be given a careful overhauling designed to locate any serious flaws in the mechanism, such as might render operation over bad roads in any way perilous, and to forestal difficulties of the sort that might arise from the clogging of the lubricating system or the freezing of the cooling water. Elsewhere the Motor World gives directions for such an overhauling,

at the same time indicating the advisability of carrying out the work in the most expeditious manner possible.

#### Motor Cars in the Field of War.

Effective demonstration that the motor vehicle is a valuable adjunct to military operation of all sorts has been secured so many times that it is useless to reiterate the statement that it is destined to a great future in this rigorous and exacting class of work. But it is possible to draw one or two useful conclusions from the recent manoeuvres of the Third Army Corps of France at Gournay. It was a "war game" played on a larger scale than ever such a game has been played before, and the automobile fulfilled an important role in carrying it on. It is noteworthy, however, that the use of self-propelled vehicles went no further than the limits more than one authority has placed upon them already; they were used in forwarding supplies to the front, and in general service work. Apparently the day of the motor driven caisson and light artillery is not yet.

In the particularly important work of feeding the army, the motor vehicle rendered conspicuously effective duty. Thirty large vans were employed in hauling the daily food supplies of General Meunier's force, which numbered 30,000 troops. Eight of the vans were used in transporting the day's supply of meat, the remaining 22 being used for the transportation of other supplies. The meat vans brought beef and mutton each morning from the military slaughter houses at Gournay and Gisors, about 30 miles to the rear of the encampment. The vans were in in constant telephone communication with headquarters at all times. Incidental to the work of the new "fourth arm"—the aerial contingent—two types of aeroplane destroying guns, automobile mounted, also were employed.

It is so easy to permit the imagination to dwell on vague future possibilities that it is quite possible to overlook present realities. While the time may come when animals will be dispensed with in all army transportation movements, at present that is impracticable. Although wide tires of special construction that will negotiate soft ground successfully with medium loads may be provided, heavy weights still must be moved by the more antiquated means. But for transporting troops, food, forage, ammunition and supplies, and in hospital service, the motor vehicle already excels.

**THE WEEK'S INCORPORATIONS.**

Detroit, Mich.—Rapp Motor Co, under Michigan laws, with \$1,000; to do general garage and renting business.

Lewiston, Me.—Maine Supply & Garage Co., under Maine laws, with \$200,000 capital; to do a general garage, renting, and taxicab business.

Milwaukee, Wis.—Hearne Motor Co., an Illinois corporation with \$3,000 capital, to do business in the state of Wisconsin with a capital interest of \$1,000.

Brooklyn, N. Y.—Hartford Garage Co., under New York laws, with \$10,000 capital. Corporators—Moses Spiero, Michael Brayer, Clarence A. Leavitt, all of Brooklyn, N. Y.

Columbia, S. C.—Roddey Automobile Co., under South Carolina laws, with \$10,000 capital; to deal in automobiles and supplies. Corporators—J. B. Roddey, J. J. Cain.

St. Louis, Mo.—Grand Motor Car Co., under Missouri laws, with \$8,000 capital; to operate a garage and renting business. Corporators—A. O. Heisel, R. W. Anselm, R. J. Ganahl.

Lakota, N. D.—Inter-State Motor Car Co., under North Dakota laws, with \$25,000 capital; to deal in automobiles. Corporators—George L. Barrett, H. J. Simons, E. F. Hughes.

Cairo, Ill.—Cairo Motor Co., under Illinois laws, with \$3,000 capital; to deal in automobiles, accessories and supplies. Corporators—W. J. Johnston, W. H. Wood, D. S. Lansden.

New Haven, Conn.—Broadway Garage Co., under Connecticut laws, with \$25,000 capital; to do general renting and garage business. Corporators—Anton Mai, Frank Mai, B. J. Curran.

Charleston, Mo.—Charleston Motor & Garage Co., under Missouri laws, with \$2,000 capital; to operate garage and supply store. Corporators—J. L. Devers, Roy L. Devers, J. B. Penny.

Windsor, Can.—Canadian Commercial Motor Car Co., under Ontario laws, with \$40,000 capital. Corporators—Celestin Thibeault, Ernest D. Craig, Charles F. House, all of Windsor, Ont.

Columbia, Tenn.—Maury Motor Co., under Tennessee laws, with \$5,000 capital. Corporators—William A. Dale, Horace Rainey, G. E. McKennon, George T. Hughes, J. M. Dedman.

Portland, Me.—Automobile Sales & Supply Co., under Maine laws, with \$5,000 capital; to deal in automobiles. Corporators—Lewis A. Goudy, George B. Merrow, James B. Soule, David E. Moulton.

Newark, N. J.—Nicol-Winckelhofer Co., under New Jersey laws, with \$5,000 capital; to deal in automobiles and other motor vehicles. Corporators—J. C. Nicol, L. C. Nicol, A. A. Winckelhofer, all of Newark.

New York City, N. Y.—Hengel-Addis Mfg. Co., under New York laws, with \$1,200 capital; to manufacture incidental equipment for automobiles. Corporators—Frederick Hengel, Jacob Addis, Julia Addis.

Lansing, Mich.—Reo Motor Truck Co., under Michigan laws, with \$1,000,000 capital; to manufacture and sell commercial motor vehicles. Corporators—R. E. Olds, James H. Thompson, J. Edward Roe, of Lansing.

**Recent Losses by Fire.**

Colusa, Cal.—J. C. Monk's garage and one automobile burned. Loss, \$2,000; no insurance.

Sturgeon Bay, Wis.—J. C. Dana Co.; garage damaged, four cars burned. Total loss about \$5,000.

Omaha, Neb.—Velie Auto Garage, 19th and Farnam streets; building damaged, two automobiles destroyed. Loss, \$2,000.

Utica, N. Y.—Utica Taxicab Co.'s garage at Blandina and First streets; four touring cars and three taxicabs destroyed. Loss, \$21,500.

Richmond, Va.—Richmond Motor Co., garage at 319 West Main street; building destroyed, seven automobiles burned. Loss, \$22,000. Partly insured.

**Changes in capitalization.**

Streator, Ill.—Streator Motor Car Co. increases capital from \$30,000 to \$600,000.

Muskegon, Mich.—Motor Mfg. Co. increases capital from \$100,000 to \$150,000.

Milwaukee, Wis.—Stephenson Motor Car Co. increases capital from \$50,000 to \$100,000.

Bowling Green, Ohio—Bowling Green Automobile Co. reduces capital from \$5,000 to \$3,000. The directors are W. F. Toops, C. H. Smith, L. H. Conklin.

**Meeting to Discuss Electric Vehicles.**

The recently organized Electric Vehicle Association of America will hold its first open meeting on Tuesday next, 18th inst., in the concert hall of Madison Square Garden, New York, during the Electrical show which now is in progress there. A number of papers pertaining to electric vehicle subjects will be read and discussed. The session will be opened at 10 o'clock. At the show there are several exhibits of electric vehicles, including Babcock, Baker, Studebaker, Bailey, General Electric, Lansden and Detroit cars.

**Speir Joins Pennsylvania Staff.**

John C. Speir, who has been associated with the Locomobile, Autocar and other well known concerns, has been appointed superintendent of the mechanical department of the Pennsylvania Auto Motor Co., Bryn Mawr, Pa., makers of the Pennsylvania car. He already has assumed the duties.

**COMING EVENTS**

October 15, Chicago, Ill.—Chicago Motor Club's reliability contest.

October 15-16, Philadelphia, Pa.—Automobile Club of Philadelphia fall tour, Atlantic City and return.

October 21-22, Boston, Mass.—Boston "American" commercial vehicle contest.

October 21-25, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

October 28-29, New York City—Commerce city vehicle test, under auspices New York American.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on Speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 7-11, Chicago, Ill.—Reliability contest under auspices Chicago Motor Club.

November 10-13, San Antonio, Tex.—San Antonio Automobile Club's races at International Fair grounds.

November 12, Savannah, Ga.—International road race for the Grand Prize of the Automobile Club of America.

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 26-27, Los Angeles, Cal.—Motordrome races.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 5-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

**SAVANNAH GETS GRAND PRIZE**

**Long Island Promoters Finally Abandon Race—The Georgia City Acts Quickly—Date Already Set.**

Savannah has secured the Grand Prize package. Although newspaper clamor had not forced or induced the Long Island authorities to revoke their permit to run the Grand Prize race on the Long Island course on Saturday next, and it was believed therefore that the contest would be run as originally scheduled the Motor Cup Holdings Co., wearied of the turmoil and on Thursday last formally abandoned the undertaking. Following the decision W. K. Vanderbilt, Jr., president of the Cup Holdings company, wired Savannah of the action taken and Savannah, in the person of its mayor and other distinguished citizens, promptly boarded the train for New York and arriving there had no great trouble in securing the "plum," nor was much time lost in naming the date, November 12th. At first it was thought that Thanksgiving Day might be selected, but most of the drivers were anxious to get back to their factories as soon as possible, in order to "spruce up" the exhibits for the Madison Square Garden show. Their view of the matter prevailed and the earlier date was fixed.

Last Thursday's meeting, when Long Island surrendered its rights to the race, was in the nature of a joint conference of the officials of the Motor Cup Holding Co. and of the entrants for the race. It was held at the Automobile Club of America. W. K. Vanderbilt, Jr., Henry B. Sanderson and A. R. Pardington were present for the Cup Holding company. The entrants were represented by James Joyce (Alco), Gaston Plaintiff (Ford), E. R. Hollander (Fiat), W. B. Easton (Sharp-Arrow), W. C. Durant (Marquette-Buick), Washington Roebling (Roebling-Planche) and George W. Loft (Mercedes). The meeting was private, but it is known that the discussion related chiefly to the policing of the course.

The entrants were anxious to have the contest carried out, but they insisted upon better patrol service. The promoters finally admitted that it was impossible to secure enough policemen to protect the stretch according to the notions advanced, so it was decided the only thing possible was to abandon the affair. The following statement explaining the situation was issued the same evening by the Motor Cups Holding Co.:

"At a joint meeting of the executive committee of the Motor Cups Holding Co. and the entrants in the second international grand prize race, scheduled to be held on Long Island on Saturday, October 15, 1910, it was, by unanimous vote of the entrants

present, with full knowledge of the fact that every reasonable precaution was taken to control the immense crowds attracted to the Vanderbilt Cup race, held on the 1st inst., and further, realizing that no greater precaution can be taken for the Grand Prize race, and upon the request of the Motor Cups Holding Co. that they be relieved of the responsibility of conducting said Grand Prize Race,

"Resolved, That the request of the Motor Cups Holding Co. be acceded to, and it is further unanimously

"Resolved, That the thanks of the entrants be extended to the Motor Cups Holding Co. for the sportsmanlike manner in which the Vanderbilt Cup race was conducted, and for their offer to conduct the Grand Prize race, should it be the desire of the entrants."

When the mooted abandonment of the race first was published, telegrams were received from about a dozen cities asking for the contest, but Savannah having held the first Grand Prize contest, when the military patrol was found uncommonly efficient, was given the preference. Other leading applicants were Philadelphia, Indianapolis, Atlanta, Los Angeles and Cheyenne. Savannah promised to straighten and improve its course, which has been greatly bettered since the first race two years ago. The circuit has lately been shortened and can now be made 17.2 or 18.5 miles on short notice. The undesirable section of the old circuit through the Isle of Hope has been eliminated.

The foreign drivers almost without exception would prefer the race near New York, but that being out of the question they almost to a unit approve of Savannah, particularly as several of them participated in the first Grand Prize held there.

The delegation representing Savannah, and consisting of Mayor Tiedeman, Judge A. B. Moore, Harvey Granger, chairman of the executive committee of the Savannah Automobile Club; Judge Oliver T. Bacon, road commissioner, and Judge George T. Cann, of the Superior Court, already has returned South, while Arthur W. Solomon, secretary of the S. A. C., will remain in New York for a day or two more to fix up the details in connection with the race.

**Death the Penalty for Looking Backward.**

To be instantly killed while running at a speed of less than 15 miles an hour, without having a collision, breakdown, steering gear trouble, or similar accident, was the unusual fate of C. W. Reinoehl, superintendent of the Pennsylvania Steel Co. While touring with a party of friends near Buena Vista, N. J., on Sunday last, he violated that first rule of safe driving by raising himself in his seat and looking backward to see if friends in another car were following. As might have been expected, the car ran off the road, turned over and crushed him.

**HARD UPPERCUT FOR B. OLDFIELD**

**A. A. A. Delivers It and Spoils the Black and Tan Game—Pickens and Jack Johnson Feel Effects.**

When Barney Oldfield, the white automobilist, assisted by "Col." Bill Pickens—also white—decided to try conclusions on a race track with Jack Johnson, the black pugilist, he played with a fiercer fire than even the "colonel" himself imagined existed—and he is reputed to possess quite an imagination, at that. Preceded by a cloud of theatrical defies and stage sniffs the two great men—with no reflections on Bill, or on the Sheepshead promoter, who expected to make a big clean-up—got together and signed up for a match on the Sheepshead Bay track, near New York, where playing the ponies no longer is as profitable as it used to be.

The preliminary work was conducted in true pugilistic style. In addition to an elaborate campaign of press work and the signing of articles, it later developed that there were moving picture privileges and that Barney disposed of the "rights" for the occasion to a Chicago investor, receiving therefor the munificent compensation of \$9,000. With his large and imposing array of "dirt track records," to which he hoped to add yet another, and with a bonus for the race snugly tucked away in his clothes, matters were looking decidedly rosy from the white "champion's" point of view.

Unfortunately for all concerned, however, they had reckoned without the American Automobile Association; they had not even gone to the trouble of obtaining a sanction for the affair before making announcements and issuing elaborate and thrilling posters heralding what may have been "the race of the century." Nor had Johnson become possessed of an A. A. A. registration card.

When the latter fact first was remarked it was announced that such registration would be denied when applied for. But in pugilistic parlance Johnson "put one over" on the Three-A's. On a day when Chairman Butler was absent from the office, he sent a boy up with his dollar, making application in the name of John Arthur Johnson. As they are not well up on prize fighting in the office of the association, none recognized the name of the "hero of Reno." Registration card No. 669 was therefore issued to John Arthur and everybody connected with the financial affairs of the meet chuckled audibly.

They chuckled too soon, however, for a couple of days later the registration was canceled and John Arthur's dollar was returned to him. Furthermore, the contest board of the A. A. A., at a meeting held on Tuesday of this week meted out sum-



mary punishment to Oldfield for announcing his intention of competing in an unsanctioned event and on an unlicensed track by suspending his license temporarily and ordering him to show cause why the suspension should not be made permanent. Likewise the activities of Mr. Pickens in the affair were not overlooked, and he has been disqualified from competing in any sanctioned event and from acting as the manager of an entrant, or as a promoter, entrant, owner, driver or in any other capacity. The official displeasure of the Three A's was expressed in the following language:

"Whereas, Barney Oldfield, under the American Automobile Association rules a recognized and registered automobile racing driver, has announced or caused to be announced in the public press and upon posters his entry in a so-called track race with Jack Johnson at the Sheepshead Bay track (unlicensed for automobile contests), to be held on October 20th, official sanction for which contest has neither been applied for nor issued, which action is a direct violation of the provisions of Rule 58 of the 1910 contest rules of the American Automobile Association, . . .

"An entry in any unsanctioned contest, or an authorized announcement in public print that an entry has been or will be made, shall be deemed sufficient cause for the immediate disqualification by the contest board of the owner, entrant, driver and car, or any or all of them; and

"Whereas, The conduct of W. H. Pickens, now Mr. Oldfield's manager, and his statements in the public press in connection with the proposed unsanctioned contest are injurious to the welfare of the sport and industry and destructive of the confidence of the public in automobile contests; and

"Whereas, The entrance into an organized and well accredited sport of the leading exponent of an unorganized so-called sport, which is under the ban in most of the states of the Union, and who is, as we believe, without requisite experience in automobile track racing and has yet to demonstrate his competency as a racing driver, would preclude the granting of official sanction for such so-called contest as detrimental to the interests of regularly organized automobile competitions; therefore,

"Barney Oldfield is, under Rule 58, hereby suspended and disqualified until further notice from future competition or participation in sanctioned automobile contests, and

"W. H. Pickens is hereby disqualified from participation in any sanctioned automobile contest, either as manager of an entrant, promoter, entrant, owner, driver or in any other capacity; and they are each of them hereby directed to show cause why such disqualification should not be made permanent."

Meanwhile Oldfield has declared his intention of "keeping faith" with the promoters and the dear, dear public, as well as of living up to the terms of his contracts, regardless of the ban that has been placed upon the affair. John Arthur also is in a rebellious mood, and is represented as declaring that he will have his registration from the contest board if he has to go to law about it. In explaining to the board that it was "in error" in representing that he obtained his card by trickery he acknowledges a sentiment to the effect that he should not be blamed for what he terms "lack of office system" among the Three A's employees who are not familiar with pugilism. Also he has returned the fee that had been returned to him and the wandering dollar again has found its way to the desk of Chairman Butler.

#### Westgard Off on "Routing Expedition."

A. L. Westgard, accompanied by Mrs. Westgard, left New York Tuesday morning last, 11th inst., for an overland voyage to San Francisco. Mr. Westgard constitutes about 60 per cent. of the Touring Club of America; Mr. F. H. Elliott, the remaining 40 per cent., saw his partner take his departure in a Premier car, which is described as "one of the club's official cars." When the energetic Elliott is not acting as part of the Touring Club, he is one of the cogs in the New York state automobile bureau—chief examiner, or something like that, and as invitations had been issued to see the start of such a large part of the organization on such a momentous voyage, Mr. Sam Koenig, secretary of state and head of the automobile bureau, was among those present to wish Westgard Godspeed, etc. Mr. Westgard has letters of introduction to most of the governors on his route, but nevertheless expects to complete his journey in about 60 days. Westgard's objects are variously stated. The official definition of the trip is a "routing expedition," but Mr. Willie Randolph Hearst's newspapers say that Westgard is laying out the line or a line which may be followed by the aviators who may compete for his \$50,000 coast-to-coast prize. Other people guess that Mr. Westgard will devote even more time to explaining to hotel keepers on the route the beauties of the Touring Club's aim, scope and co-operative plan, and how they help bring lodgers and spending money to all places which figure on the maps which grow out of its "routing expeditions."

#### Rabbit's Influence Won Vanderbilt Race.

That it was the mystic influence of a rabbit's foot, tucked away in the car, that enabled Harry F. Grant to win the Vanderbilt Cup for the second time this year did not become known until several days after the race. The secret was disclosed by Grant himself at a dinner tendered him at the Engineers' Club by the American Locomotive Co., manufacturer of the Alco car

which he drove to victory both this year and last. When asked to speak, Grant modestly told the story of the giant colored man, "Footsey," who visited the camp in 1909 and again this year, and blessed the car just before the race. This year he left a rabbit's foot on the hood, it was explained, which was put away and carried in the race. The dinner was made the occasion for presenting the winning driver, his mechanic, F. H. Lee, and his other helpers, with substantial checks in token of the company's appreciation of their services. Incidentally, Grant expressed the wish that the names of the men who made the lighting tire change at the pit, during the crucial point in the race when he was on his twenty-first lap, be made public and due credit given them. They were Robert Cleland, one of the Michelin Tire Co.'s racing force; George Babcock, foreman of the engine testing room at the Alco factory, and the mechanic, Lee.

#### Illinois Horsemen Object to Oldfield.

Just three minutes was allowed Barney Oldfield, Saturday, 8th inst., to show his paces with the Blitzen Benz over the State Fair grounds at Springfield, Ill. The long slumbering animosity between the horsemen and automobile racing interests of that locality suddenly burst into flame and at first Oldfield was barred altogether from the track. At the request of Gov. Deneen, who was present, the equine fanciers relented to the extent of 180 seconds, however. Oldfield had announced one of his innumerable attacks upon dirt track speed records. The horsemen say it is a fight to a finish against gasoline invasion of horse tracks.

#### A. A. A. Stops Exhibition of a Trophy.

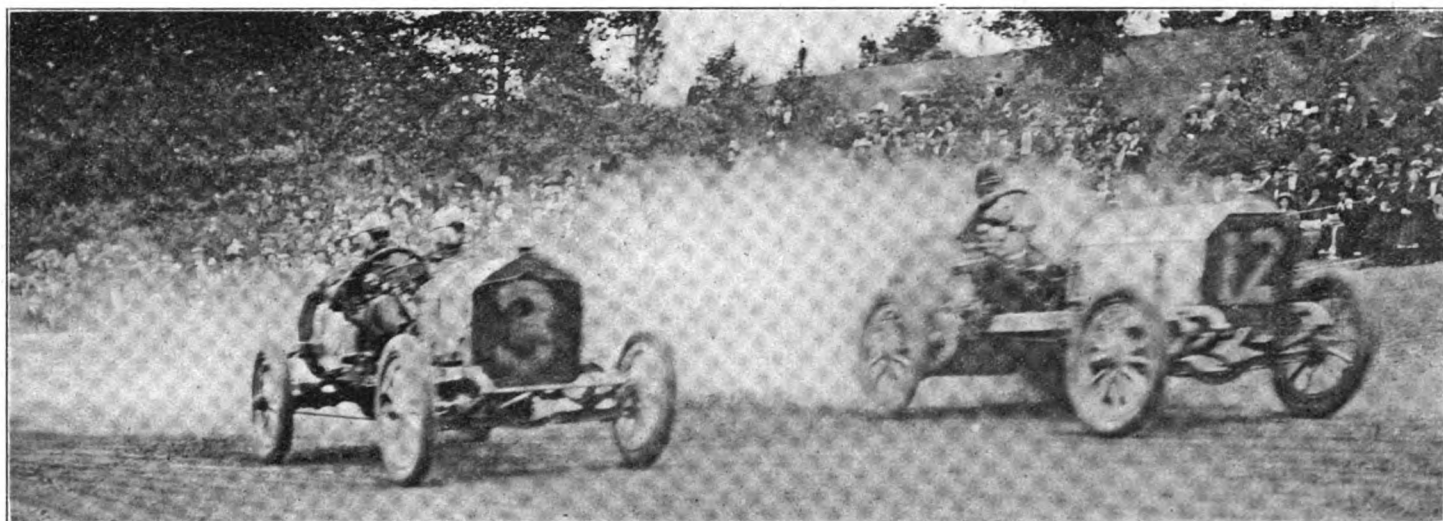
Although the joint endurance run of the Kansas City Automobile Club and Kansas City Star was ended almost a month ago, no rulings on the protests entered, following the award, have yet been made by the American Automobile Association. The trophy, however, was delivered to the Buick No. 17, despite the protests of the Reo and Ford representatives, on technical points, and the Buick people quickly trotted the cup around to their various agencies for exhibition purposes. After the contest committee of the three A's had telegraphed that such display of a prize under protest was prohibited, the cup was finally returned to the Kansas City Club.

#### Aberdeen Motorists Organize a Club.

At a meeting of business men of Aberdeen, S. D., the Aberdeen Automobile Club was organized, and the following officers elected: President, H. C. Jewett; vice-president, J. C. Bassett; secretary and treasurer, John B. Roumans. F. H. Barnard, R. D. Alway, S. H. Jumper, W. C. Allen, F. W. Boettcher and L. J. Swanson form the board of governors.

# Tire Change Decides Fairmount Park Race

Zengle and Mulford Have a Rare Duel but Mulford's Flat Tire Enables the Pennsylvanian to Win by Five Seconds—E. R. Bergdoll, Once Dangerous, but Only One Driver of a Foreign Car is Able to Finish—Two Accidents to Contestants but Philadelphia Police Keep Big Crowd of Spectators Well in Hand.



WHEN THE QUAKERS QUIVERED WITH EXCITEMENT—ZENGLE (No. 12) OVERHAULS AITKEN (No. 3) AT GRANDSTAND

Leonard Zengle, a Pennsylvanian, driving a car made in Pennsylvania, won the Fairmount Park road race run in Philadelphia, Pa., on Saturday last, 8th inst. Good guessers estimate that 500,000 Pennsylvanians saw him perform the feat. "Len"—that's what he's called by the home folk—completed the 202.5 miles in 209 minutes 7.88 seconds, an average of 58.10 miles per hour. When he dismounted from his car he was presented with a huge bouquet of roses and was hoisted on the shoulders of some of his enthusiastic fellow citizens and others, while still others hurraed respectfully.

In strictest truth, however, it must be said that Zengle, in keeping the honors at home, had a close squeak. Ralph Mulford, of New York, driving a Lozier, finished less than six seconds behind him. Tobin DeHymel (Stoddard-Dayton) was third, and John Aitken (National) fourth. W. G. Jagersberger, who piloted a Mercedes, and who finished fifth, was the only man in a foreign car to survive.

The race, however, held honors for more than Zengle, for while all of the 32 contenders who started were privileged to strive for the first prize it was almost a foregone conclusion that one of the big

cars would gather it in. To attract entrants, therefore, the cars had been separated into five classes and a silver cup and cash award provided for the winner in each.

It was not until after the race had been completed and the times had been sifted that it was possible to evolve the several winners, who proved to be as follows:

Division 6C—601-750 cubic inches.	
Leonard Zengle, Chadwick.....	3:29:07
Division 5C—451-600 cubic inches.	
Ralph Mulford, Lozier.....	3:29:13
Division 4C—301-450 cubic inches.	
John Aitken, National.....	3:42:21
Division 3C—231-300 cubic inches.	
Ernest Gellard, Pullman.....	3:57:41
Division 2C—161-230 cubic inches.	
Vincent Padula, Warren-Detroit....	*3:55:27

\* Twenty-two laps only.

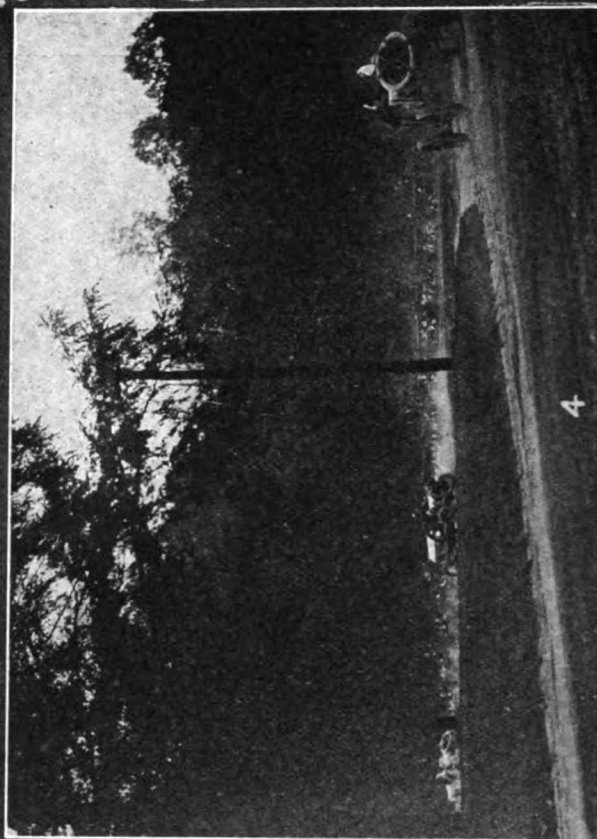
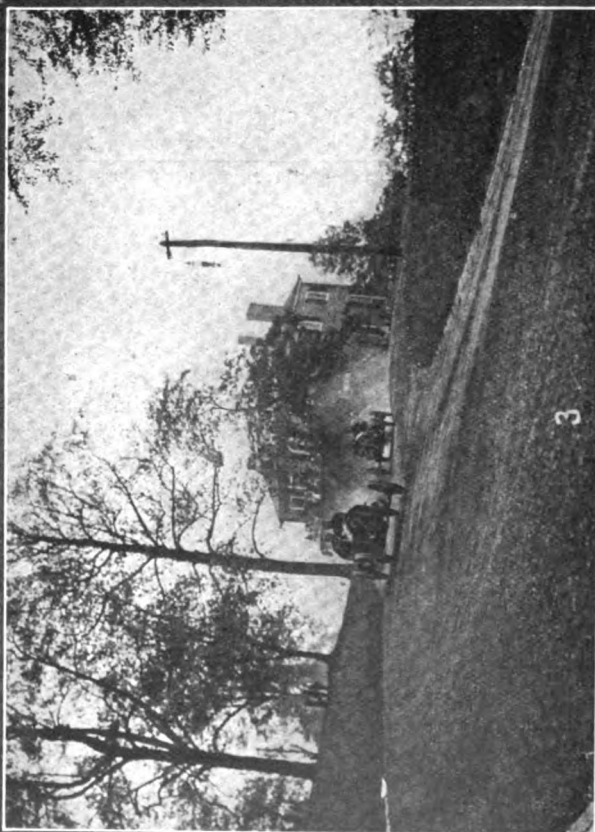
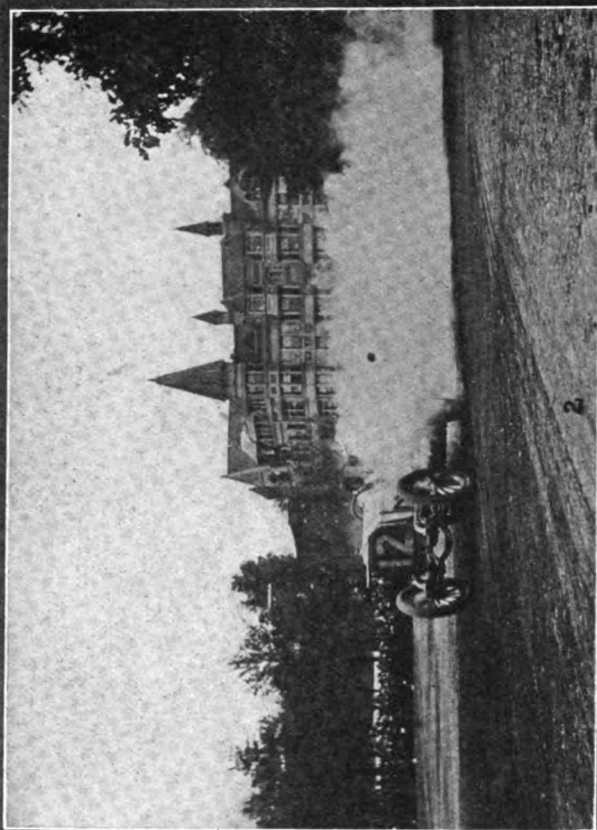
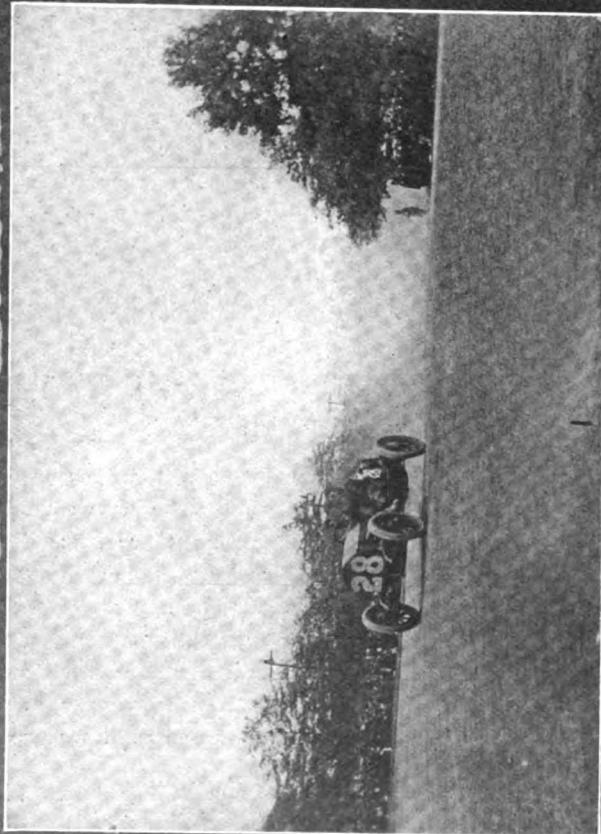
The race, with the five races within itself, is one of which the Pennsylvanians are proud, for not only does Zengle's time shatter the record for the complete distance, but the record for one lap, 8.1 miles, also was broken. Ray Harroun, in a Marmon car, was the man who earned this latter glory. On his twelfth lap he went around in 7 minutes and 38 seconds, but, figuratively speaking, he did not live to tell the tale. He was still running when the race was called, but does not figure as a survivor.

The Pennsylvanians are proud also of the manner in which the race was conducted. Although two contenders suffered spills and one mechanic was badly injured, not a spectator was hurt, and the Fairmount Park race, be it understood, was quite unlike other races of its caliber. Most of them are conducted out in the country. The Philadelphia contest was conducted practically in the heart of the city—in the city's most famous park, in fact, a small part of the course actually being on a city street overlooked by stately and not so stately residences.

The promoters, however, did not have to rely on Pinkertons or country constables to handle the huge crowd that gathered; the Philadelphia police force itself attended to that part of the function and attended to it admirably. A perfect fringe of these bluecoats surrounded the course. They permitted no one, or practically no one, who had no business to do so to place a foot on the course after the race was started.

The police themselves constituted a picturesque feature of the day. Their helmets with their metal "skylights" in the crown singled out even the ordinary patrolman, while the mounted cops so closely

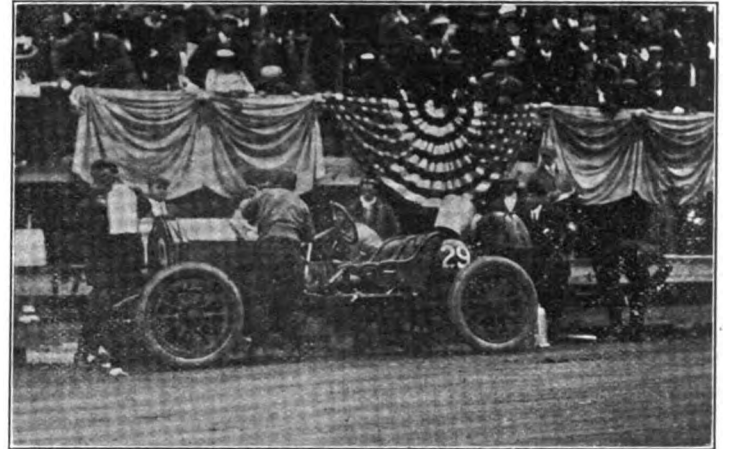
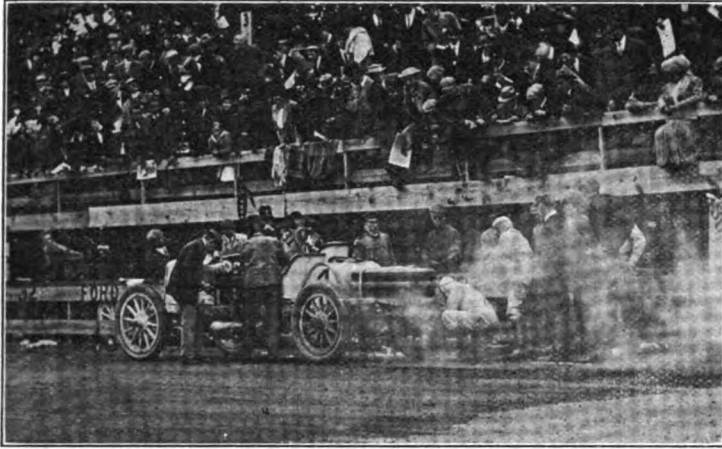
WHEN THE GOING WAS GOOD IN THE FAIRMOUNT PARK ROAD RACE



1. WHEN DAWSON (MARION) WAS CONSPICUOUS  
3. PADULA (ABBOTT-DETROIT) AND DAWSON (MARION) IN CLOSE COMPANY  
ON SWEET BRIAR CURVE

2. ZENGLE (CHADWICK) WHIZZES OUT OF THE PARK AND IN AGAIN  
4. REAR VIEW OF CONTENTERS ROUNDING SWEET BRIAR CURVE





AT THE REPAIR PITS—DeHYMEL (STODDARD-DAYTON) AND MULFORD (LOZIER) PERFORMING SOME QUICK WORK

resemble United States cavalymen that it is hard to distinguish them at a distance. The caps and uniforms of the officers of the force resembled those of the majors and major-generals of the United States army, so imposing is the gold braid. Despite the braid, however, they "seen their duty and they done it," on Saturday last at any rate.

The race was started on the stroke of twelve, when Starter Gantert gave the word "Go!" to Harris Hanshue. The other contestants were despatched at intervals of 10 seconds. The order of starting was as follows:

No.	Car.	Driver.
1—	Apperson	Harris Hanshue
2—	Abbott-Detroit	Mortimer Roberts
3—	National	John Aitken
4—	Lozier	Ralph Mulford
5—	Benz	Erwin R. Bergdoll
6—	Abbott-Detroit	Montague Roberts
7—	Stoddard-Dayton	Hugh Harding
8—	Pullman	Harold Hardesty
9—	Apperson	Geo. E. Davis
10—	Pullman	Ernest Gellard
11—	Marmon	Ray Harroun
12—	Chadwick	Leonard Zengle
13—	Simplex	W. C. Mullen
14—	Jackson	Harry Cobe
15—	Mercer	H. P. Frey
16—	National	H. S. Wilcox

17—	Berz	Willie Haupt
18—	Cole	Harry Endicott
19—	Simplex	J. Fred Betz
20—	Mercedes	W. G. Jagersberger
21—	Abbott-Detroit	Vincent Padula

26—	Benz	Edward A. Hearne
27—	Cole	William Endicott
28—	Marmon	Joe Dawson
29—	Stoddard-Dayton	Tobin DeHymel
30—	Benz	Chas. Bergdoll
31—	Corbin	Ice Matson
32—	Otto	Frank Yeager

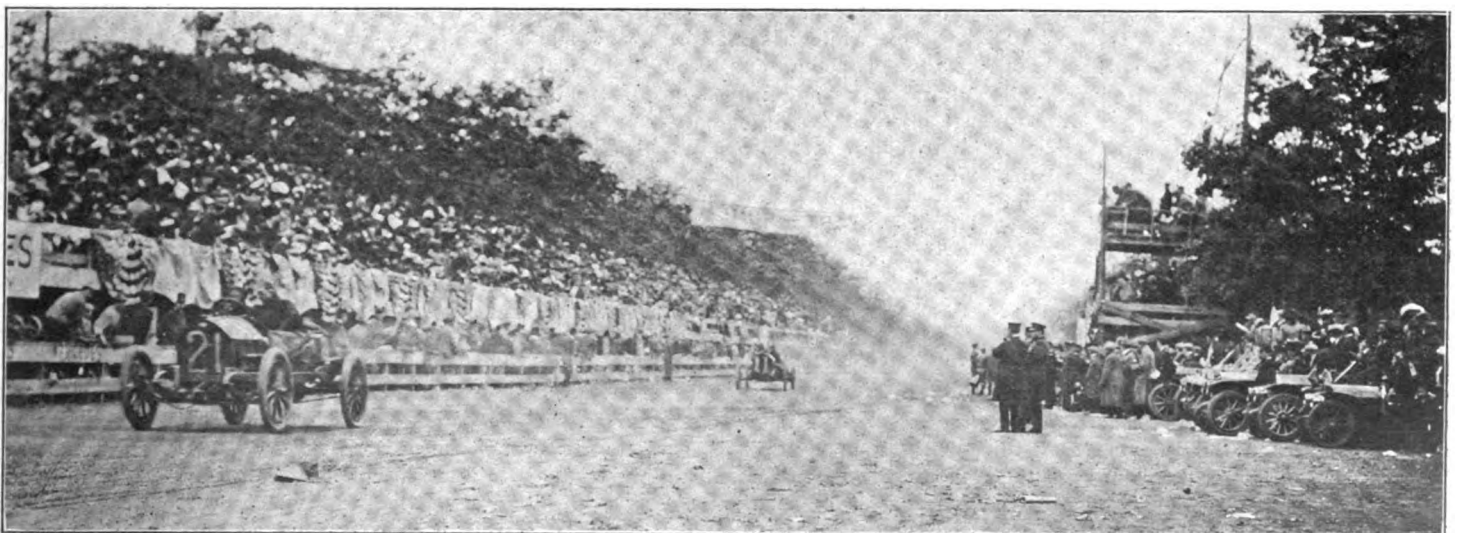


ZENGLE, HIS GRIN AND BOUQUET

22—	Simplex	Ralph Beardsley
23—	Westcott	Harry C. Knight
24—	Ford	Frank Kulick
25—	Chadwick	Al. Mitchell

Immediately he got under way, Al. Mitchell (Chadwick) proceeded to make a runaway race of it. He at once went to the front—in point of time—and for five laps he ran faster than a scared rabbit ever ran and then he "blew up" almost tragically, which is to say that on the Neil Drive he flew off the road and ran into an embankment, spilling both himself and his mechanism and rendering his Chadwick hors de combat. Mitchell and his assistant escaped with nothing worse than severe shakings and bruises.

E. R. Bergdoll—there were two Bergdolls; don't confuse them—in the big Benz, the biggest car in the race, after a bad first lap had been working steadily forward, and when Mitchell spilled he went to the front. He is rated an amateur in Philadelphia, but he drove as daringly as ever professional drove and cut out such a furious pace that he steadily drew away—in point of time—from all of the others. He was



PADULA (ABBOTT-DETROIT) AND HARROUN (MARMON) GIVE THE GRANDSTAND A THRILL

## Summary of the Fairmount Park Races,

DIVISION 6C—FOR CARS OF 601-750 C										
12—Len Zengle	Chadwick	707	8:43	17:07	25:45	34:07	42:20	50:46	58:59	67:15
5—E. R. Bergdoll	Benz	731	8:50	17:07	25:23	33:39	41:39	49:41	57:48	66:03
25—Al. Mitchell	Chadwick	707	8:10	16:48	25:07	33:18	41:30	Out—Hit bank on Ne		
13—W. C. Mullen	Simplex	672	9:49	19:26	28:11	Out—Cracked cylinder.				
22—Ralph Beardsley	Simplex	672	8:45	17:33	Out—Hit stone wall under bridge.					
19—J. Fred Betz, 3d.	Simplex	672	Out—Broke crank shaft on first lap.							
DIVISION 5C—FOR CARS OF 451-600 C										
4—Ralph Mulford	Lozier	544	8:32	16:53	25:17	33:40	41:58	50:22	58:30	66:54
29—Tobin de Hymel	Stoddard-Dayton	487	8:25	17:07	25:32	34:17	44:39	51:14	59:36	68:04
20—W. G. Jagersberger	Mercedes	557	8:54	17:58	26:43	35:35	44:25	53:36	62:22	71:00
9—George E. Davis	Apperson	597	9:44	19:14	28:31	37:54	47:11	56:30	65:39	74:07
1—H. M. Hanshue	Apperson	597	9:31	18:47	Out—Stripped gear.					
7—H. N. Harding	Stoddard-Dayton	487	8:47	23:47	Out.					
DIVISION 4C—FOR CARS OF 301-450 C										
3—J. D. Aitken	National	447	9:01	17:46	26:26	35:07	43:54	52:47	61:33	70:16
14—Harry Cobe	Jackson	354	9:06	17:58	26:58	36:22	45:31	55:04	64:10	73:30
23—H. C. Knight	Westcott	354	9:11	18:37	27:27	36:50	46:01	55:07	64:00	73:12
11—Ray Harroun	Marmon	318	12:05	21:20	29:55	40:02	48:22	57:15	66:04	74:50
17—Willie Haupt	Benz	444	20:02	28:25	37:22	46:00	54:40	63:14	71:51	80:28
16—H. S. Wilcox	National	449	8:54	17:49	26:42	37:49	47:08	56:51	66:19	75:01
26—Ed. Hearne	Benz	448	8:58	33:53	43:36	53:03	64:34	75:58	85:38	95:23
30—C. A. Bergdoll	Benz	449	Out—Lost gasoline cup, first lap.							
DIVISION 3C—FOR CARS OF 231-300 C										
10—E. Gellard	Pullman	256	9:43	19:12	28:38	37:59	47:19	56:47	66:00	75:05
15—H. P. Frey	Merced	300	10:12	20:57	30:39	41:24	51:30	61:34	71:41	81:41
32—Frank Yerger	Otto	253	12:57	23:05	33:08	43:05	53:00	62:47	72:52	82:44
28—Joe Dawson	Marmon	299	8:43	17:43	26:15	35:04	43:58	52:45	61:29	70:08
31—Joe Matson	Corbin	270	9:25	19:17	30:27	Out—Magneto trouble.				
8—H. Hardesty	Pullman	286	14:49	Out—Twisted pump shaft.						
DIVISION 2C—FOR CARS OF 161-230 C										
Driver.	Car.	Piston Displace.	1	2	3	4	5	6	7	8
21—V. P. Padula	Abbott-Detroit	213	11:23	22:23	33:10	44:00	54:43	65:25	76:07	86:41
2—Mortimer Roberts	Abbott-Detroit	213	10:03	19:53	29:46	39:39	49:33	59:32	69:29	79:30
24—Frank Kulick	Ford	201	9:46	19:54	29:06	39:14	55:21	64:46	74:16	83:41
18—Harry Endicott	Cole 30.	201	9:57	20:02	29:24	40:01	50:03	60:02	70:05	80:03
27—William Endicott	Cole 30.	201	10:27	20:54	Out—Differential locked.					
6—Montague Roberts	Abbott-Detroit	213	11:42	30:20	Out—Ignition trouble.					

\* Running when race was called.

some four minutes ahead on the sixteenth lap, when he "got his." It came in the form of a broken oil pipe—not much of a break, but sufficient to give Bergdoll his quietus.

When Bergdoll first became dangerous, Mulford (Lozier) was in second place, and although he could not match the furious pace of the Philadelphian he trailed, not wholly respectfully, in second place, and when Bergdoll ceased his running Mulford took command and Zengle moved up into second position. He stayed there until the sixteenth lap, which marked the beginning of a rare duel between the two men. Each of them suffered tire trouble and as a result their positions shifted several times. Mulford's tires gave him pause on the twentieth lap. It was not much of a pause for the tire change was quickly made, but it was enough to permit Zengle to assume the leadership. Mulford did what a polite New Yorker termed "his damndest" to make good his loss, but it was not until the twenty-fourth lap that he succeeded. Then both of Zengle's tires blew out and Mulford once more was in front; but not very far

in front, at that. In fact, he then led Zengle by but nine seconds and the excitement of those who had kept tabs on the running was at fever heat. It was either man's race with the advantage, of course, in favor of Mulford; but the fortunes of sport were against him and on the very last lap, while passing the grand stand a tire went down, and though he made a lightning change it was not fast enough. He pursued Zengle like a demon possessed, and though he gained on him he lacked five seconds of being his master when the flag fell; but the consolation which comes of being a victor in his class, Division 5C, was his. The big prize, however, was Zengle's, and then it was because of it that the bouquet of roses was thrust into his hand and that the photographers singled him out. In these races-within-a-race, no one really follows others than the "big" race itself; the minor ones may as well be off the map for all the spectators know of them; they figure chiefly in the newspaper reports.

However—while Zengle and Mulford were engaged in their rare fight, other

things were happening to other men, of course. In fact, before either Zengle or Mulford assumed the lead many of their rivals had fallen by the wayside, two of them tragically. One of these was Mitchell, as already stated. The other was Ralph Beardsley (Simplex), who while negotiating the Sweet Briar curve, on the thirteenth lap, ran into a stone wall under the railroad bridge and suffered severely. Beardsley himself was badly bruised and shaken up, and Glenn Eldredge, his mechanic, sustained a broken arm and a broken leg, and at first was thought to be fatally injured.

His sensational performance in the Vanderbilt Cup race the week before had led not a few to pick Joe Dawson, the Marmon whirlwind, to figure prominently in Philadelphia. Joe, however, could not repeat. He drove a slightly less powerful car, to begin with, and while he acquired a good gallop he showed no such pace as that which his little car in the Vanderbilt affair developed and which landed him in second place in that classic contest. He never was dangerous at Fairmount Park, that is so



## eld at Philadelphia, Pa., October 8, 1910

## IC INCHES PISTON DISPLACEMENT.

77:00	85:17	93:29	101:42	109:55	118:10	126:18	134:26	142:23	150:37	158:46	166:50	174:57	183:09	191:22	199:31	209:07.88
74:12	81:25	90:35	98:46	107:01	115:17	123:32	Out—Oil feed pipe snapped.									

rive.

## IC INCHES PISTON DISPLACEMENT.

75:07	83:20	91:33	99:45	107:57	116:09	124:24	132:39	140:51	149:08	157:26	166:53	175:08	183:16	191:23	199:22	209:13.30
76:28	84:47	93:10	106:42	114:57	126:09	134:51	143:07	151:53	160:09	168:25	176:41	184:53	193:02	201:12	209:24	217:42.95
79:50	88:34	97:37	108:22	116:58	125:38	134:17	142:53	151:23	159:51	168:44	180:08	188:55	197:30	206:06	214:41	223:18.71
84:05	94:30	103:50	112:58	122:08	131:20	140:36	150:03	161:50	171:10	188:15	197:25	206:39	216:01	225:19	234:29	243:42.05

## IC INCHES PISTON DISPLACEMENT.

79:10	88:23	97:19	106:13	115:02	123:57	132:57	141:47	150:36	159:27	168:22	177:13	186:11	195:16	204:13	213:18	222:20.75
82:36	91:51	100:58	110:01	119:15	128:12	137:07	146:04	155:04	163:59	172:59	181:56	190:50	199:42	208:37	217:28	226:13.16
82:14	91:12	100:07	109:09	118:06	127:05	136:01	144:55	155:38	164:36	175:14	184:18	193:15	202:14	211:09	220:08	232:44.87
83:32	92:11	101:53	109:31	118:29	150:30	160:30	170:08	179:38	191:15	201:04	210:39	220:25	229:55	239:28*		
89:12	97:48	106:23	115:06	123:51	132:33	141:20	150:23	159:02	167:38	176:09	Out—Stone in shifting quadrant.					
89:38	98:16	107:01	115:43	126:31	135:06	143:35	152:05	160:44	170:39	Out—Broken radiator.						
109:57	Out—Spark plug trouble.															

## IC INCHES PISTON DISPLACEMENT.

84:03	93:01	102:00	110:53	119:49	129:54	139:06	148:22	157:49	167:27	177:05	186:32	196:10	205:46	216:40	226:59	237:04
91:38	101:25	111:00	120:34	130:07	139:39	140:08	161:43	171:18	180:51	190:20	199:56	209:36	219:11	228:49	238:22*	
97:41	111:03	121:06	131:08	141:10	151:13	163:25	173:41	183:47	193:52	205:09	215:10	225:09	235:18*			
78:46	87:22	96:15	104:59	Out—Engine trouble.												

## IC INCHES PISTON DISPLACEMENT.

9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
97:18	107:40	118:18	128:49	139:17	149:53	160:25	172:31	183:05	193:25	204:03	214:27	224:50	235:27*			
89:24	99:18	109:22	119:19	129:11	139:13	149:08	159:10	169:04	179:06	189:06	199:05	Out—Threw wheel.				
115:22	124:50	134:27	143:57	153:24	162:55	172:51	184:22	197:05	206:40	216:06	225:46	Disqualified.				
89:52	99:54	109:43	119:52	130:57	143:19	151:43	162:07	172:58	193:25							

far as the big prize was concerned. However, he was leading his class, Division 3C, on the thirteenth lap when his engine "struck" and put him out of it. The running in that class then was taken up by E. Gellard (Pullman), who drove with impressive consistency and led his nearest classmate by more than a full lap.

It was Dawson's team mate, Ray Harroun, that scored the fastest lap, and though Harroun did fairly well, and was still running when the race was called, he never was able to get among the first flighters.

DeHymel (Stoddard-Dayton) and Joe Aitken (National), two other Vanderbilt performers, had a pretty little scrap between themselves for third position in the big race, and DeHymel won out, which, seeing that he had the larger car, was not wholly surprising. Aitken, however, led his class, Division 4C.

When nine contenders had completed the full distance the race was stopped, although there were four others still in the running, viz., Frey (Mercer), Yerger (Otto), Harroun (Marmon) and Padula (Abbott-Detroit). Padula was the only man remain-

ing in his class, Division C2—for the littlest cars—and after he had completed 22 laps he was stopped and adjudged the winner in that division.

If the Pennsylvanians who braved the leaden sky and the chill wind that prevailed found joy in the conclusion of the race, the first round surely brought them some pangs of regret, for it was on that lap that two of Philadelphia's own candidates, J. F. Betz (Simplex) and Charles Bergdoll (Benz) were put out of the running, Betz with a broken crankshaft and Bergdoll by a fuel tank which sprang a leak. Another Pennsylvanian went out on the second lap, Harold Hardesty (Pullman), who twisted a pump shaft.

The third lap, however, was the one which brought the greatest number of failures. In that round Montague Roberts (Abbott-Detroit) suffered ignition trouble, which he could not overcome; William Endicott (Cole) was put out by a differential which locked; Hanshue (Apperson) stripped a gear; Beardsley (Simplex) collided with a stone wall, as previously stated, and Hugh Harding (Stoddard-Day-

ton) sustained ills which were not reported. On the fourth lap Matson (Corbin) and Mullen (Simplex) were the victims, the former with magneto trouble, the latter with a cracked cylinder. It was on the sixth lap that Al. Mitchell, when leading, spilled and was heard of no more.

For the next four laps all of the survivors were in the running. On the tenth, however, Hearne (Benz) retired because of what was said to be spark plug trouble and on the thirteenth Joe Dawson followed him with an engine that had balked.

It was on the sixteenth lap, when E. R. Bergdoll (Benz) seemed to have the race well in hand that his broken oil pipe laid him up at the roadside. On the nineteenth Haupt, another of the numerous Benz contingent, suffered double trouble, an overheated engine coupled with a stone which lodged in his gearshift quadrant. On the same lap Wilcox (National) broke his radiator, and Harry Endicott (Cole) also retired.

On the twenty-first, Mortimer Roberts (Abbott-Detroit) threw a wheel, and Frank Kulick (Ford) suffered a disabled one. In

## THE MOTOR WORLD

his anxiety to replace it he permitted two outsiders to render assistance and as a result was promptly disqualified. Kulick had a narrow escape on the Sweet Briar turn. Once in attempting to negotiate it he ran off the road, jumped the curb and meandered on the lawn, narrowly escaping an electric light pole. By rare skill he got back to the road again and suffered apparently little delay. He was leading his class in the fourth lap when he ran into trouble. His delays and disqualifications were a disappointment to many, as his car weighs less than 800 pounds and for this reason was expected to do things.

R. E. Ross was the referee of the race and also chairman of the contest committee. The general managing committee, made up from the Quaker City Motor Club and municipal boards, consisted of Mayor Reyburn, chairman; L. D. Berger, secretary of the Quaker City Motor Club; William F. Gleason, Harry C. Harbach, Frank Hardart, Fred C. Dunlap, A. T. James, J. R. C. McAllister, Dr. Joseph S. Neff, Henry Clay, Dr. J. J. Moylan and Jacob Lit.

After spending about \$12,500 for prizes and paying all other expenses, five local charities are likely to divide at least \$10,000 as the result of the contest.

The winning driver in each division received a cash prize of \$1,000 and a municipal trophy valued at about \$400. In addition, Zengle won \$2,500 for making the fastest time, the race therefore netting him about \$4,000. As usual, the drivers formed a "death pool" of \$100 each, which totaled \$3,200; as there were no deaths it was refunded.

From a trade standpoint the race, like the Vanderbilt Cup contest, was largely a Michelin-Bosch affair. Michelin tires were on the wheels of the winners in each class, save one—Zengle's class—and Bosch magnetos equipped all the winners without exception. Zengle's Chadwick was shod with Firestone tires.

Saturday's race was the third of the series and George Robertson, who won both the previous events, was an interested spectator, not having thoroughly recovered from the injuries sustained during his practice for the Vanderbilt Cup contest. In 1908 Robertson won in a Locomobile, his time being four hours two minutes and 30 seconds. His average time was about nine minutes to the lap, his best round being in eight minutes 23 seconds. Cyrus Patchke in an Acme was second, finishing in four hours 14 minutes 54 seconds, while Mulford in a Lozier was third in four hours 17 minutes 26 seconds. Last year Robertson drove a Simplex to victory in three hours 38 minutes 58½ seconds. Bert Dingley in a Chalmers was a close second and Hugh Harding in an Apperson third. Their times, respectively, were three hours 44 minutes and 20 seconds, and three hours 52 minutes and 17 seconds. Zengle, in a Chadwick, made the fastest lap in the race.

## "ATHLETES" DEFEAT MOTORISTS

## Chicago Athletic Team Proves "More Reliable" in Inter-Club Contest—Two Days of Strenuous Travel.

By a score of 543 demerits to 866, the Chicago Athletic Association won the inter-club reliability run to Waukesha, Wis., and return, from the Chicago Automobile Club, which occurred Oct. 7-8. Heavy rains for days preceding the contest had put the roads in almost impassable condition, and as a result heavy penalizations were fre-

the day were 237 points, 204 of which were for repairs on a broken spring. A. S. Ray (Stearns), C. A. C., received 71 debits, having been hauled out of the mud. W. Eggermann (Rambler), C. A. C., replaced the bearings in a front wheel and lost so much time doing it that he was penalized 150 points for being late. C. Bosch (Stearns), C. A. C., drew 11 black marks for tardiness and repairs, the car finally being left behind.

C. A. Briggs (Chalmers) was the only C. A. A. representative to be very heavily penalized in the first half, he getting 117 points for repairs on a broken clutch and lateness due to that cause. W. W. Harlass

## Chicago Athletic Association.

No.	Driver	Car	Penalties		
			1st day	2d day	Total
1	C. T. Knisely	Palmer-Singer	9	4	13
7	W. G. Beek	Oakland	0	0	0
9	W. H. Chamberlain	Rambler	4	9	13
11	C. H. Thorne	Diamond T	2	0	2
13	C. A. Briggs	Chalmers	117	216	333
17	S. E. Miller	Packard	0	0	0
19	W. C. Thorne	Palmer-Singer	0	0	0
21	W. F. Grower	Diamond T	0	0	0
25	L. T. Jacques	Peerless	0	0	0
27	A. J. Vyse	Thomas	0	0	0
31	W. W. Harlass	Mora	71	3	74
35	W. E. Davis	Chalmers	0	108	108
Grand total					543

quent, one contestant being obliged to abandon his car and return home by train. There probably has never been as exacting a trip of the sort held around the Windy City. The conditions were such that 10 of the rocking chair clubmen refused to start at all. Nevertheless, eleven perfect scores were made, seven of them by the athletic club.

(Mora), however, aggregated 71 points, 34 of which were for engine trouble.

The second day Briggs, C. A. A., blew out four tires and had enough minor troubles to bring his aggregate demerits to 216 points for the last half, or 333 all told, and but for that and the fact that W. E. Davis (Chalmers) lost 108 points for a broken oil pipe, the Chicago Athletic Association

## Chicago Automobile Club.

No.	Driver	Car	Penalties		
			1st day	2d day	Total
2	A. S. Ray	Stearns	71	6	77
4	E. C. Patterson	Packard	0	0	0
6	W. Eggermann	Rambler	256	0	256
8	C. Bosch	Stearns	111	150	261
10	N. H. Van Sicklen, Jr.	Apperson	0	0	0
12	F. X. Mudd	Ford	7	0	7
16	L. R. Parker	Rambler	0	0	0
18	T. J. Hyman	Chalmers	5	0	5
24	J. T. Brown	Velie	1	7	8
26	32B. B. Ayers	Cadillac	2	0	2
32	G. F. Griffin	Peerless	0	0	0
34	C. A. Tuttle	Chadwick	237	13	250
28	P. J. McKenna	Pierce-Arrow	0	0	0
Grand total					866

The worst part of the trip was encountered the first day when the Automobile Club lost 690 points to 203 for its rivals. Because of the conditions the officials upon reaching Harvard decided to cut off the jog to Oconomowoc, saving about 40 miles thereby. C. A. Tuttle (Chadwick), C. A. C., did not know of the change of plans, however, and so kept to the original route and had a terrible jaunt. His demerits for

would have made a fine showing. C. Bosch (Stearns) received 150 points the second day, that being the only debit of consequence on the Chicago Automobile Club's side the second day. The run as set was 307.2 miles, about equally divided between the two days. The omission of the Oconomowoc detour, however, saved nearly 40 miles on the first half, so that the distance actually covered was but 268 miles.

**MOTOR CAR VS. HORSE MATCH****Maxwell's Unique Test Affords Interesting Cost Comparison—Car Develops Quarter of a Cent Advantage.**

Following the completion of its unique contest to determine the passenger-mile cost of operating a Maxwell runabout as compared with a horse and buggy, the Maxwell-Briscoe Motor Co., Tarrytown, N. Y., has announced the final results obtained. These show the average cost of transporting one person one mile by the automobile method to be 1.57 cents, as compared with 1.81 cents when the horse and buggy are used. Under the conditions of the test the two conveyances were driven a certain number of hours each day. Thus the total mileage covered by the automobile was more than twice as great as that covered by the horse and buggy. The total mileage figures are 457.9 and 197.3 miles, respectively.

Under the inspection of official observers appointed by the American Automobile Association the competitors were driven over a different route each day, the object being to secure the widest possible range of practical working conditions. The routes covered included portions of Manhattan, Brooklyn, Staten Island, the Bronx, Westchester county and suburban New Jersey. The average daily travel of the runabout was 76.3 miles; the horse and buggy, on the other hand, only covered an average of 32.8 miles during the same period.

Accurate record was obtained of the distances covered and the costs of supplies. No repairs were necessary in either case, but an allowance for depreciation was made in both instances. Allowing five years as the useful life of the car, 20 per cent. depreciation was charged against it, on the basis of \$180 per year, or, assuming that the car was capable of making 10,000 miles per year, 1.8 cents per mile. Allowing 10 years for the useful life of the horse, buggy and harness, and basing the charge on a first cost of \$275 and 10 miles of travel per day, the depreciation of the horse-drawn outfit was charged at the rate of 0.75 cents per mile.

To simplify calculation, certain other items of necessary cost were offset against each other in the two instances. Thus the cost of shoeing, bedding and wagon grease was supposed to more than equal the expense of cup grease for the car and both were neglected in figuring the respective costs. No attempt was made to compare the relative costs of upkeep, and questions of interest, insurance, taxes and labor were not considered. What the figures actually reveal is a comparison of the expenses for gasoline and oil and for hay and oats, in

the two cases, with an added allowance for depreciation. The record follows:

Automobile.				
Day	Miles	Gasolene gal.	Oil pt.	Cost
1	67.4	5	1	\$1.00
2	76.1	5	1½	.92
3	76.3	6½	1	1.12
4	80.0	5¾	1	1.00
5	82.8	5½	1	1.07
6	75.3	5	1	1.09
457.9 miles at cost of.....				\$6.20
Repairs .....				.00
Depreciation .....				8.24

Total cost .....	\$14.44
Cost per mile.....	.0315
Per passenger-mile .....	.0157

Horse and Buggy.				
Day	Miles	Oats qts.	Hay lbs.	Cost
1	28.8	12	20	\$0.95
2	35.5	12	20	.95
3	31.2	12	20	.95
4	35.8	12	20	.95
5	34.4	12	20	.95
6	31.6	12	20	.95
197.3 miles at cost of.....				\$5.70
Repairs .....				.00
Depreciation .....				1.47

Total cost .....	\$7.17
Cost per mile.....	.0363
Per passenger-mile .....	.0181

**Sure Profits Lead to Prison Cell.**

John Nimitz, of Highland, Ind., at present is in jail, meditating over the failure of his business, which promised sure and large profits. Of course his business was rather unusual, and that's why he sits behind the iron bars. He sold parts and accessories without having gone to the bother of buying them in the regular and established way. He had them stolen from the factory of Thomas B. Jeffery & Co., Kenosha, Wis., and George A. Marble, keeper of the store-room, was the dishonest employee who did the stealing. Both have made a confession to District Attorney Baker, of Kenosha, and as a result a number of other employees are implicated, and warrants for their arrest have been issued. It is even claimed that the ramifications of the robbing plot extend to Chicago, and the district attorney made a hurried trip there to work up the Chicago end of it. No one knows exactly how much has been stolen, as the thefts have been going on for many months.

**To Mix Motor Cars and Flying Machines.**

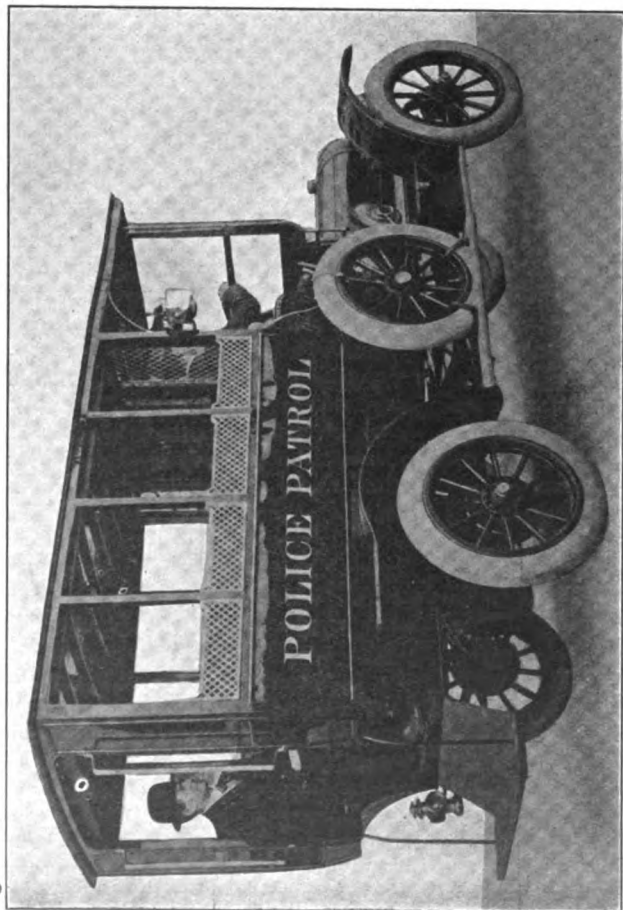
The promoters of the international aviation meet at the Belmont Park race track at Queens, L. I., October 22-30, hope to have a display of automobiles as one of the "sideshows." The exclusive right to exhibit cars there had been obtained by the Licensed Automobile Dealers of New York through their general manager, James M. Carples, but later the directors of the association decided not to officially take advantage of the privilege, thus leaving the field an open one.

**WON'T HAVE TO SHOW RED LIGHTS****New York Aldermen Shelve Resolution Proposing Rear Signal for Horse Vehicles—May be Revived Later.**

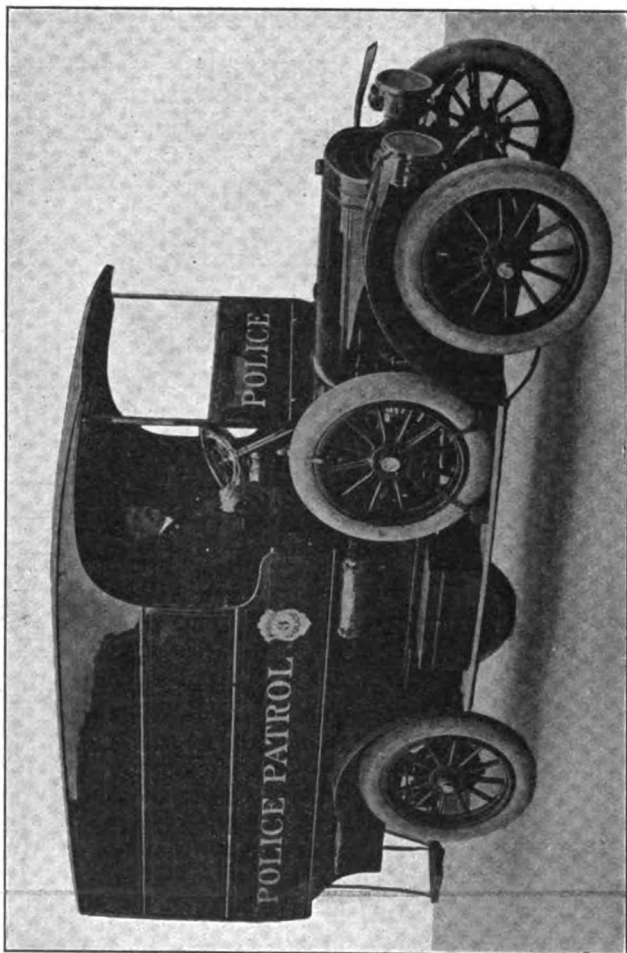
The resolution of Alderman Bent, of New York calling for red rear lights on horse vehicles has gone upon the general calendar of the board of aldermen. The aldermanic committee on law and legislation discussed the matter in executive session Monday afternoon, and reported favorably upon it, but at the meeting of the board the next day, when it came to ballot, as less than 40 members voted yea, it failed of adoption. The matter is likely again to be taken up in the near future. The ordinance which Mr. Bent seeks to amend follows, new matter being in parenthesis:

"Section 458. Lights—Each and every vehicle using the public streets or highways of this city, except vehicles of licensed truckmen, shall show, between one hour after sunset and one hour before sunrise, a light or lights, so placed as to be seen from the front and each side; if dash lantern is carried it shall be placed on the left-hand side; such lights to be of sufficient illuminating power to be visible at a distance of 200 feet; said light or lights shall show white in front, but may be colored on the sides, excepting licensed truckmen; (other horse-drawn vehicles shall exhibit a red light, suspended in the rear, and visible therefrom a distance of 200 feet to the rear.) Every automobile shall exhibit during the same period two lamps showing white lights visible at a distance of 300 feet in the direction which the automobile is proceeding, and shall also exhibit a red light, visible in the reverse direction. The lamps shall be so placed as to be free from obstruction to light from other parts of said automobile. No operator of any automobile or other motor vehicle, while operating the same upon the public highway, within the city, shall use any acetylene, electric or other headlight, unless properly shaded so as not to blind or dazzle other users of the highway, or make it difficult or unsafe for them to ride, drive or walk thereon. In the borough of the Bronx, excepting south of Tremont avenue and 177th street, east of Jerome avenue and west of the Bronx river, and in the boroughs of Richmond and Queens, and in the twenty-sixth, thirtieth, thirty-first and thirty-second wards of the borough of Brooklyn, every car or other vehicle between said hours, while moving on, along or standing upon the portion of streets in said boroughs or parts of boroughs, shall also carry a light or lights of such illuminating power as to be plainly visible 200 feet, both ahead and behind said car or vehicle."

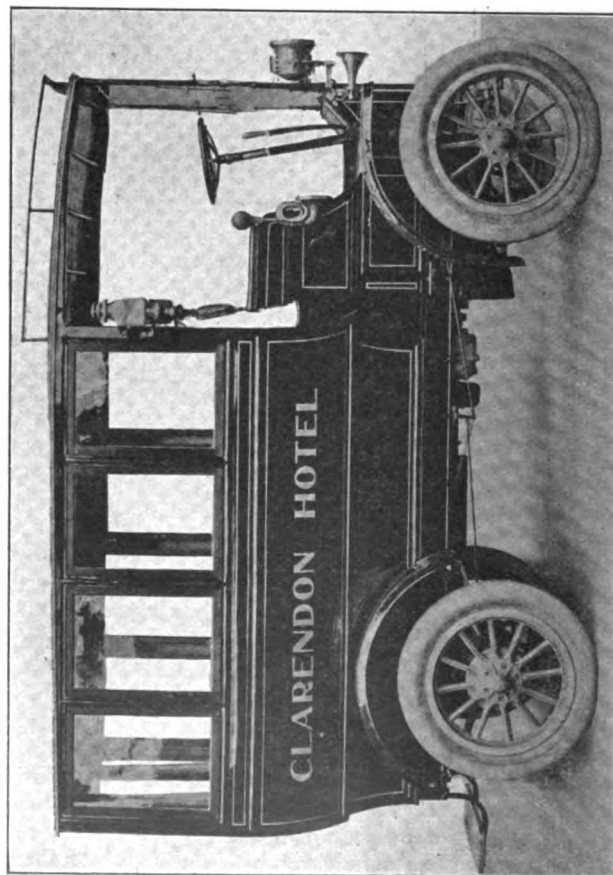
FOUR APPLICATIONS OF THE LIGHT CHASSIS TO COMMERCIAL SERVICE



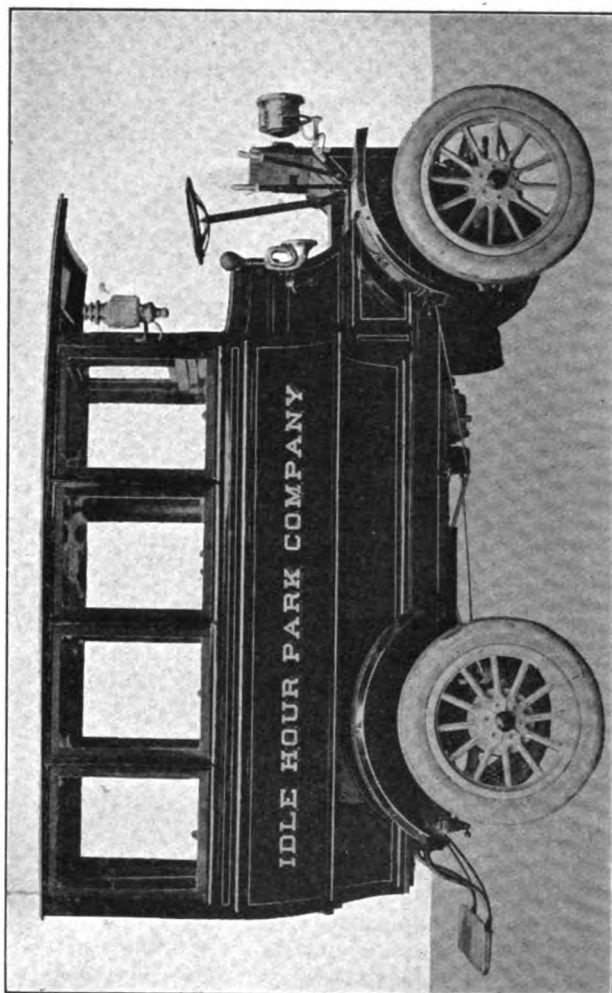
RAMBLER COMBINATION PATROL-AMBULANCE IN SACRAMENTO, CAL.



ANOTHER RAMBLER THAT SERVES THE POLICE IN MINNEAPOLIS, MINN.



FRANKLIN HOTEL BUS IN USE AT WINNIPEG, CANADA



ANOTHER FORM OF FRANKLIN OMNIBUS IN HOTEL SERVICE

## PREPARING THE CAR FOR WINTER USE

"About this time expect heavy rain-storms"—as the Farmers' Almanac would have it. Likewise the motorist who is blessed with experience will take advantage of this or any other seasonable opportunity that presents itself to lay up his car for the partial overhauling that is considered a wise precaution if the machine is to be run through the winter months. For although many owners still prefer to put away their machines during cold weather, the number of those who prefer to take advantage of the crisp weather of the late fall and the occasional mild days of winter itself, constantly is increasing as is the number of those who use their cars the year 'round, practically regardless of weather conditions. And it is quite generally recognized that if the car is to be run over frozen ground and through roads from which the frost is working out, and particularly if it is to be driven through the snow, it requires to be put in good condition in order to withstand the severe strain.

As almost everyone knows, the coming of cold weather requires that certain precautions be taken to safeguard the cooling system against the effects of freezing and to ensure proper lubrication under low temperature conditions. But it is almost equally important to forestall as far as possible the effects of the racking and twisting that the machine is likely to undergo in order to prevent serious injury of the sort that may result from the neglect of worn and disarranged members. It is a foregone conclusion that the automobile that has been in use all winter will require a pretty thorough going over in the spring, together with a new coat of paint. But it is also the part of wisdom to get ready for the winter by giving the parts a thorough inspection and altering the equipment in any way that may be desired by way of preparation for cold weather work.

The greatest stresses, of course, come upon tires and wheels. Therefore it is very important that at the outset the running gear and the steering mechanism be inspected and put into perfect running condition in order to make sure that no half-hidden flaws exist to render the use of the car on a rough or uneven road positively dangerous.

In the same connection it must be borne in mind that such is the constitution of the automobile that shocks and strains received through the wheels are distributed pretty much throughout its entire structure. It is on this account, as well as to provide against the contingencies that arise from cold weather alone, that it is wise to give the machine a complete inspection some

time during the fall when it can be spared for two or three days.

In doing the work it is well to bear in mind that after a hard winter's work the car is bound to require a second going over, and further that such damage to paint and varnish is likely to follow that it would be poor economy to pay much attention to the question of appearance at this time. Therefore considerable good judgment should be employed in determining just what measures shall be taken in the way of renewals and repairs to faulty parts. In general a good rule to follow is that of making adjustments rather than expensive replacements of getting the work out of the way as rapidly and cheaply as may be consistent with perfectly trustworthy running results.

In going over the bearings, for example—whether in engine, transmission or axles, it is well to take up lost motion rather than to renew bushings, taking great pains in the matter of correcting any loss of alignment—since this difficulty sometimes may be a symptom of sprung or disarranged parts—and making sure that the studs and bolts which secure the adjustments are fastened in such a way as to be in no danger of working loose.

In regard to the engine in particular, there are the questions of carburation, ignition and lubrication to be investigated. As cold weather approaches, the carburetter must be provided with additional heat for the mixture. Most cars are equipped with means for heating the mixing chamber, either from the water jackets of the cylinders, or by means of an air intake in the vicinity of the exhaust manifold. It is essential that such provision, whatever it may be, be in working order, and that the operator be watchful in regulating it to suit the temperature conditions of the alternate warm and cool periods which are likely to succeed one another during the fall. Furthermore, in respect to the carburetter itself, it is important that the throttle and regulating devices are clean and free from dust and gummy oil, which might interfere with their action when cold, and also that the controlling arrangement are in good order and free from lost motion.

In a similar way, it is a good plan to give the ignition system a general going over, although there is nothing about it to be affected seriously by even an extreme drop in temperature. In particular the insulation of the wiring should be looked after, and worn spots, or those which have been rotted with oil, carefully wrapped with insulating tape and shellacked over. The connections also should be inspected to make sure that the strands of the wires

have not been broken by too frequent flexing and that the threads of binding screws are not so greatly worn that they will fail to hold their adjustment. In a similar way the battery, coil, timer and contact points should be put in shape, rather with the idea of "tuning" the system for a severe test than of rendering it "as good as new."

In regard to the lubrication system, it is particularly important that all ducts and feed pipes be thoroughly cleaned for the reason that any impediment to the flow of oil is rendered of greater importance in winter than in summer, through the tendency of even a thin-bodied oil to thicken at low temperatures. Because it is not pleasant to make roadside repairs in cold or stormy weather, it also is a good plan to make sure that all unions in the oiling system are solid and show no signs of breaking away and that the pipes themselves have plenty of "slack" so that they will yield to warping in the frame without causing the unions to be strained. Also it is well to readjust the oil feeds to give a slightly increased flow, though that depends to some extent upon the grade of oil recommended by the manufacturer for winter use.

Beyond looking after the alignment of the shafts and making sure that the gear changing lever and its sub-connections are so adjusted as to cause the gears to mesh properly, the change gear should require little attention at this time. It should be thoroughly cleaned, however, and the case supplied with a grade of oil especially recommended by the manufacturer of the car or of a trusted oil producer for the mechanical and climatic conditions which are to be withstood. The same, in a general way, applies to the rear axle, if of the live type, save that that member should be inspected with extreme care to make sure that it does not sag, and the truss rods, which help to strengthen the housing, drawn up until they are carrying their full share of the load.

The propeller shaft and the linkage that serves to anchor the rear axle in place, however, require special attention. The universal joints must be inspected and any lost motion taken up, if suitable means of adjustment is provided. At all events, it is important to make sure that the parts are not worn sufficiently to endanger their safe working, while it is equally important that the joints be properly lubricated and covered with a leather or metal housing. The torsion bar should be firmly secured to the axle housing at the rear, and the cushion device, by which it is suspended in front, should be strongly attached to the frame and the springs observed to be of sufficient strength to keep it from bumping



with a noticeable shock except when a very severe jolt is encountered.

In the same connection it should be ascertained that the alignment of both front and rear axles is correct, as this has a most important bearing on tire wear—always an important item, but never more so than during the winter. The springs also require attention and should be jacked up sufficiently to permit a thick graphite grease to be spread between the leaves, the perch bolts afterward being drawn up tightly, to prevent slipping or lost motion, while the shackles and shackle bolts should be examined carefully for signs of excessive wear or flaws.

The steering gear in particular should receive attention. The gear itself should be free from lost motion, its casing thoroughly clean and filled with lubricant, and its attachment to the frame rendered absolutely secure. The connections should be examined to see that they are neither bent nor otherwise disarranged, while the joints must be adjusted to take up lost motion, thoroughly lubricated and protected from dirt by means of leather boots.

In looking after the wheels and rims, it is important to make sure that all flange bolts are drawn up tight, and that the spokes and felloes are examined to make sure that the dry weather of summer has not caused the wood to crack and so impair the strength of the wheel. The rims should be secured free of rust and, if of the demountable type, their locking devices examined to see that they are in proper order. Afterward it is well to go over the body and external fixtures, such as lamp brackets, fender and running board irons and top, wind shield and tire supports, taking up lost motion, replacing lost or damaged nuts and bolts and generally making sure that there is no chance for parts to work loose.

After the car has been overhauled in this way, the question of winter equipment must be gone into. And in this connection perhaps no problem is of greater importance than that of protecting the cooling system against the ravages of frost. And it can be stated authoritatively, though countless formulas for anti-freezing solutions have been suggested, and though more than one effective compound designed for the purpose is on the market in the form of a branded product, perhaps nothing can be more efficacious than a judicious mixture of glycerine and wood alcohol. By using equal parts of glycerine and alcohol to the extent of about 40 per cent. of the total contents of the cooling system practically perfect insurance against freezing at any temperature nearly down to zero is obtained, together with freedom from the danger of corroding the jackets or clogging the radiator passages with encrustations, which result from the use of some solution. With the occasional addition of small quantities of alcohol to the mixture.

this solution may be kept equally effective without complete renewal throughout the winter, as the glycerine does not evaporate with the water.

In connection with laying in the winter's supply of oil, of course it is wise to consult the maker of the car or his agent as to the advisability of changing to a thinner bodied oil for the engine than is used in summer. With certain types of oiling system, notably the self-contained pattern, in which the oil never leaves the engine casing and does not flow through external pipes, probably no change will be found necessary. With other systems, however, a lighter oil generally is required in winter. Some operators find it advisable also to employ a thinner grade of cup grease in winter than in summer, and this is particularly advisable if the car is to be run during very cold weather.

One additional precaution is necessary in connection with the temporary fall laying up. That is to lay in a good store of tires. It already has been indicated that frozen and muddy roads, snow and ice by no means are easy on the understandings of the machine. Therefore, it is well to have a good stock of spares on hand in advance. This is particularly important, as it is desirable to take advantage of favorable weather conditions whenever they present themselves during the winter, delays due to a lack of abundant equipment being particularly annoying on this account.

#### Illustrating the Extent of a Factory.

Few people who have not seen them scarcely can begin fully to realize the size and proportions to which some of the larger automobile factories have attained. Some of their extent may be obtained, however, from the fact that one watchman of the Rambler factory, for instance, in going his rounds for the night travels about eight miles and a half. Charles T. Jeffery, general manager of the Thomas B. Jeffery Co., says that if one started at one corner of the Rambler plant and walked around the buildings, returning to the same spot, he would walk a mile and a half, or a distance equivalent to 15 city blocks, figuring ten blocks to a mile. If he started at the point where the raw materials are received and made a tour of the plant, he would travel about two miles. Going around the factory would be equivalent to walking three times around the Rambler half mile testing track, or three and three-quarter times around a city square.

Incidentally, five new buildings are now being added to the Rambler plant, including the new power plant, and additions are constantly being made to the working force. The Rambler output for 1911 will again be limited to 2,500 cars. Large additions have been made during the past year to the machine shop, motor assembling department and inspection department. Every important part of the car, even including the finest

limousine bodies, are now made in the Kenosha plant.

#### Strength of Demand for Closed Cars.

Whether the experience this fall of the Pierce-Arrow Motor Car Co., of Buffalo, N. Y., in regard to enclosed cars is typical of the whole industry is a question, but it is a fact that its records show that the demand for enclosed cars is far in excess of that of any other year.

Periodically at the Pierce-Arrow headquarters percentages on body styles and colors are struck. By means of these the company is enabled to know at all times just what the trend of the buying public is in general and particularly toward its own cars. The figures so far this season show that the proportion of enclosed cars to the total output is a trifle more than 60 per cent. greater for the present season than it was for 1910 cars. This increase amounts to about ten cars in each hundred.

The demand for enclosed cars is heavier, of course, in the fall than at any other time of the year, but it is not expected that the figures will be altered to any material degree. One of the reasons for this belief is that of the enclosed cars ordered so far, the suburbans and broughams, or limousines, as they are popularly known, outnumber the landaus and landaulets in the proportion of more than three to one. Landaus and landaulets will be ordered in the spring if the experience of other seasons holds good, owing to the fact that they are ideal in spring and summer when they may be used in either open or closed form, according to weather conditions.

#### One Method of Removing Valves.

Although a number of different forms of valve removing tools are on the market, it is possible to make a fairly effective removing device by screwing a small stud into the wall of each cylinder immediately back of each of the valve stems, which can be used as a fulcrum upon which to rest the end of a screw driver when raising the spring in order to release the key which extends through the stem. In drilling the cylinder for the studs, of course the piston must be removed, and the inner wall afterward should be dressed down with a scraping tool to remove the burr raised by the drill. When it is objectionable to carry a more or less cumbersome remover in the tool kit, the device may be employed successfully; furthermore, it possesses the merit that it always is at hand and cannot be mislaid.

#### Here's First Truck Dealers' Association.

Out in Kansas City the commercial vehicle has assumed such prominence or promise that the Automobile Truck Dealers' Association has been organized. Its officers are: President, O. O. Vandenburg; secretary, M. V. Payne; treasurer, C. L. Rouze

## OPENINGS FOR AMERICAN CARS

**Mrs. Fisher Finds Them in Her Trip  
Around the World—Her Advice to  
American Makers.**

In addition to being a woman of means and some leisure, Mrs. Harriett Clark Fisher, who recently completed a tour of the world in a Locomobile, is also the owner and directing head of a large anvil and vise factory in Trenton, N. J., and therefore is no stranger to commercial problems. During her tour Mrs. Fisher's business eye was not wholly closed and the fact served to leave distinct impressions regarding the possibilities for the American automobile in foreign fields; and these impressions she has recorded in *American Industries*, the official organ of the National Association of Manufacturers, of which she is the only woman member. In her article she endeavors to arouse the American automobile manufacturers to greater efforts, promising rich rewards.

"Motor car manufacturers of the United States should wake up to the possibility of foreign trade," she says. "Abroad lie virgin fields for the industry. It is true that here and there American machines have to contend with prejudice, with the feeling that our cars will not stand up in competition. Part of this we brought on ourselves, as in Calcutta, where one line of cheap cars is said to have put us back years in winning this market.

"American automobiles are needed in England, in France, in India, South Africa and Japan. A golden opportunity lies in India. I would not be afraid to land four or five good cars there, and count on having the money for them in my pocket in a month. The people of India are fascinated with motors, from the highest priced down, and great sums are being spent for them. Ability to pay for automobiles need cause the American shipper no anxiety. The amount expended on the trappings of a single elephant would buy three or four cars, to say nothing of the maintenance of the beast.

"If the American manufacturer seriously wishes to increase his sales, let him go after this foreign business as if he meant it. He should look the ground over himself, or through a capable representative who can show his line properly.

"India with its perfect roads is a motoring paradise; a better buying class than its merchants cannot be found; for the smaller cars there is a great demand among English officers.

"Do not think there are no automobiles in India. There are many, but the American car shrinks into obscurity in its representation. Here is a single instance. His Highness the Maharajah of Gwalia has 32

machines—but of American make not one. I have had to tell people in various parts of the world who looked over my car, a 40 horsepower Locomobile, that it was a fair example of our output, though the United States makes more different types than the rest of the world combined; that the impression that we make only cheap cars is wrong; that one can get an American car for \$600, or for any price up to \$6,000—and just as good in design, material, construction and finish as may be procured anywhere.

"Foreign buyers are waiting for us to come to them, but in the meantime they are taking advantage of the propositions that France, Germany, Italy hold forth. Five hundred miles from Bombay, away in the jungle, we ran across a Fiat, belonging to an English officer touring with his wife over the model Indian roads. And this suggests a comparison of foreign highways and our own and their relation to how our machines will perform abroad. In the course of my world tour I found the roads delightful everywhere except in America. The approach to Tonopah, Nevada, over miles of tin cans and broken bottles, is a sample of the conditions a car may meet here. But the inferiority of our highways has had its use, for it has demanded of the American machine a durability that will carry it anywhere. Its generous margin of safety and strength enables it to meet the most trying and unusual conditions. The German, French and Italian cars, on the other hand, are fashioned for use in the most advantageous surroundings. When one motors in France it is as in a succession of beautiful parks, and the same is true in Italy, even in the remote villages.

"One consideration should always have the special attention of American manufacturers. In quoting prices, let them always be C. I. F.; that is, tell the prospective customer what the machine will cost laid down on the dock in his port. The buyer can scarcely be induced to figure freights, duties, unloading, etc., etc. This the manufacturer can do readily. If he disregards this condition he can thank himself for lost sales.

"The fact that the Government of Japan has appropriated a great sum for the purchase of machines to run between Yokohama, Tokio and Nikko gives some idea of the field for American automobiles there; in many places the motor will render the building of railways unnecessary. There are some machines in use, but they include the most venerable arks in existence—as, for instance, an old Belgian model with cylinders placed end to end.

"I see a great future for our automobiles when the makers realize the extent to which they may be sold abroad. Their merits need only to be given publicity. In the campaign for our latest great industry, the American tourist, such as myself, is aiding materially."

## CADILLAC MYSTERY IS SOLVED

**How It Did Not Seek a Factory Site—  
Cruel Letter Which Aroused Fond  
Hopes in All Directions.**

From one end of the United States to the other end, cities, towns and villages have been enjoying long-distance visions of a fine large automobile factory located and humming merrily in each respective "midst"—not one of those factories preceded by artful correspondence or by an even more artful promoter, but a real live factory with a big name and lots of fine machinery and with lots of cars bearing its name actually running on the road in all parts of the country, in other words the factory of the Cadillac Motor Car Co., now and since its beginning located in the city of Detroit, Mich.

The prospect of securing such a prize has caused the mayors and aldermen and the boards of trade and chambers of commerce of innumerable communities to stick their hair, pull down their vests and generally to "perk up" their persons, while "ye local editor" has forgotten the fine red apple which Si Simkins left on his desk, in the joy of turning journalistic handsprings and unfolding at great length, or less, the story of how the great Cadillac Motor Car Co. was "inquiring around" for a factory site right in Squash Hollow itself. It was not until such items began to appear in print in all directions, North, South, East and West, that anyone in the automobile trade even suspected that the Cadillac company was dissatisfied with its location in Detroit and purposed and proposed "pulling up stakes" and removing to such thriving places as Squash Hollow, Miss., or Maple Sap, Vt. None could guess the reason, and just as the wonderment was attaining growth, the mystery was solved. One of the local boards of trade bursting with pride and prunes supplied "ye local editor" with a copy of the Cadillac letter which had aroused so many fond hopes and brilliant prospects in so many widely separated parts of the country. This is the letter:

"Board of Trade:

"Gentlemen—If you have a booklet or any literature describing your city and vicinity and giving information with reference to the sources of wealth, population and activities in your territory, we should be glad to receive a copy. Thanking you in advance for any assistance you may render us, we are,

"Very truly yours,

"Cadillac Motor Car Co.,  
"E. C. Howard, Asst. Sales Mgr."

The Cadillac sales department merely was "on the job" seeking out those markets which hold promise of best returns for money and effort expended and in the seeking postage stamps had not been spared.

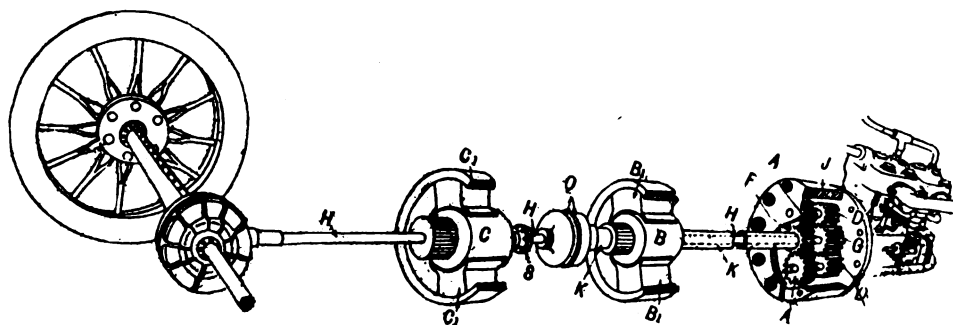
## "MIXED SYSEEM" IN NOVEL FORM

Thomas Transmission Combines Mechanical and Electrical Effects—Starts Engine and Lights the Lamps.

Another variable speed transmission system has been produced. The statement in itself is of no importance because inventors have been turning out variable speed transmissions at a prodigious rate practically ever since the first engine was put into a motor buggy. The particular interest which attaches to the design in question is that it is of the electrical variety, absolutely novel in form, both mechanically and electrically, and that it provides for the electric lighting of the car and the starting of the engine with a lighter and

diameters and are keyed to the same shafts, which are free to rotate. Up to this point it will be observed, the arrangement is closely similar to the reverse or low speed trains of a common spur planetary change gear. As in that type of gear, the planets are in mesh with two sun gears, which are keyed to two separate shafts. At this point the similarity ceases.

In the Thomas transmission system, the sun gears, F and G, are keyed to the telescopic shaft H and K. The inner shaft, H, is the propeller shaft proper and is coupled to the cardan member, which leads to the rear axle in the usual manner. It is provided with a crab claw clutch, indicated by Q in the illustration, connecting the outer and inner shafts, which is used in securing the direct drive and which also comes into play when it is desired to start the engine by electrical means. Upon this shaft, back of the coupling Q, is the armature of an



less expensive form of installation than commonly is employed in "mixed" systems, as the gasoline-electric combination ordinarily is designated.

In developing the system, its English inventor, a Mr. Thomas, has evolved a most ingenious application of the planetary gear principle. Such being the case, and to distinguish it from systems in which current derived from an electric dynamo, driven by the gasoline engine, is employed to drive one or more motors which are connected with the driving wheels, the new arrangement is termed a "mechanical electric transmission." In other words, the action at speeds below the maximum, which is a direct mechanical connection, involves a combination of both mechanical and electrical forces. The effect, strictly speaking, is that of applying an electrical brake to an ordinary planetary gear, thus enabling the motion of the floating member to be varied at will through a wide range, the maximum speed being obtained when it is brought to rest, and the car ceasing to be driven when the floating member is revolving at high speed.

The accompanying diagrammatic illustration of the arrangement shows the general simplicity of the construction involved. The drum J is keyed to the engine crank shaft and replaces the ordinary fly wheel. Within the drum are two pairs of planet pinions, A and D, which are of different

electrical machine CC, which is keyed in place. Upon the rear end of the outer shaft, K, is the armature, B, of a second electrical machine, BB. Both electrical machines are alike in that each may be used interchangeably as a motor or dynamo. They are connected through a single lever controller with suitable resistances and with a storage battery which is intended to supply current for lighting and starting the motor, and which also is used when it is desired to reverse the car.

In action the engine is run at constant speed regardless of whether the car is in motion, running at high or low speed, or at rest. When the pinions A and C are larger than the pinions D and F, respectively, the rotation of the drum causes the pinion F to revolve backward and the pinion G to revolve forward. The relative rates of rotation of the two pinions of course depends upon their relative resistance to motion. Thus the system may be said to be balanced about the mechanism enclosed in the drum exactly as the driving wheels are balanced over the mechanism of a spur differential.

When the car is at rest the pinion G will be held stationary by the resistance of the rear wheels to motion. By the same token the armature of the electrical machine CC will remain stationary. The result will be that the pinion F will rotate freely, carrying with it the outer shaft K and the arma-

ture of the electrical machine BB. When the controller is placed in the starting position, BB becomes a generator, feeding current to CC, which then acts as a motor. The result is two-fold. The loading of the dynamo, BB, tends to decrease the speed of the armature, and so of the pinion F, thus tending to cause the pinion G and the propeller shaft to turn. At the same time the current directed into the windings of the electric motor, CC, causes the armature to exert a large torque on the propeller shaft.

As the load on the shaft K causes the dynamo BB to continue to decrease in speed, the speed of the car increases until finally the armature B is brought to rest by electrical load upon it. At this point in the acceleration of the car, the electrical machine CC ceases to be a motor and begins to act as a generator, since further acceleration is impossible after the machine BB ceases to generate current owing to the stopping of its armature. As the car speed is further increased, the machine CC becomes a dynamo and the machine BB a motor. By a suitable arrangement of the connections, however, the machine BB now is driven in a direction opposite to that in which it has been turning. This has the effect of increasing the speed of the shaft K until both armatures are turning at the same rate of speed. At this instant the clutch Q is engaged, thus locking the outer and inner shafts together and eliminating the electrical end of the transmission system from action.

For obtaining the reverse, a second coupling, S, in the propeller shaft is disengaged and BB is used as a dynamo and CC as a motor, driven in the reverse direction. For starting the motor the clutch S is disengaged and the coupling Q engaged. The electrical machine BB may then be employed as a motor to turn the crank shaft, the necessary current being obtained from the storage battery.

The single controller lever works in a quadrant marked first "reverse," then "start engine," then "neutral," and afterward forward speeds from "1" to "9." A final top notch in the quadrant is marked "charge battery." The clutch is pedal controlled. Otherwise the entire handling of the machine is accomplished by means of the single controller lever, which is placed in the center of the car and operated by the driver's left hand.

It is claimed that the cost of the electrical and mechanical combination is sufficient to increase the first cost of any machine in which it is installed about \$250, as compared with its cost when equipped with an ordinary three-speed gearset. Considering the advantages gained in the way of simplicity of control, and the addition of the self-starting and lighting features—the latter, when made in the form of a separate installation with dynamo being by no means inexpensive—it is pointed out that the added cost is not exorbitant.

## FEW CHANGES IN 1911 PREMIER

Only Minor Improvements in New Models  
—Closed-Front Touring Car the  
Feature of the Line.

As is the case with so many other manufacturers, the Premier Motor Mfg. Co., of Indianapolis, Ind., has been unable to find room for more than insignificant refinement in the mechanical details of its product, and as a result its 1911 models, like those of other makers, differ from their predecessors chiefly in respect to body designs, the development of a closed-front touring car, in contradistinction to the Premier

elasticity to return to its proper alignment without cracking if subjected to a slight torsional strain. The bottom half of the crank case is of aluminum, and acts only as an oil retainer.

On the intake side of the motor is the float feed carburetter, and on the exhaust side the water pump and magneto, both being driven from the same shaft which drives the fan.

Lubrication is accomplished by means of a return circulating system with gear driven centrifugal pump. The flow of the oil may be observed from a sight feed glass on the dash.

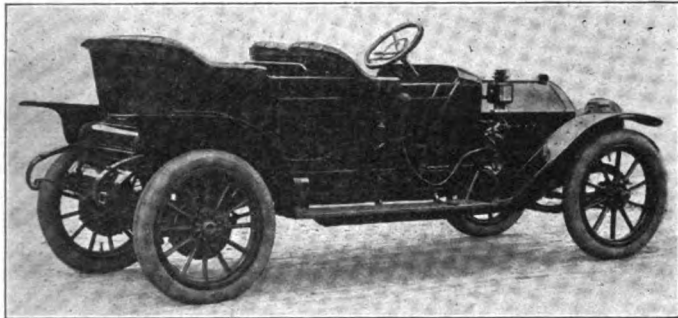
The ignition will be the high tension Bosch dual system, the Premier low tension make and break system with Bosch mag-

the front and three-quarter elliptic on the rear.

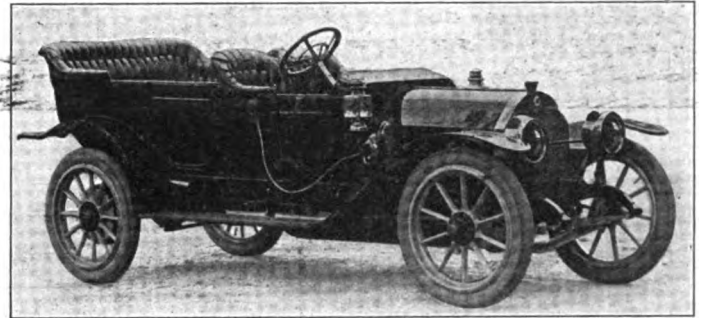
The wheels are 36 x 4½ inches on all "4-40" models, except the roadsters, which are 36 x 4. The "6-60" are provided with 36 x 4½ inch on the front and 36 x 5 inch on the rear.

### The Gospel of Friction Transmission.

In upholding the gospel of the friction transmission the Cartercar Co., Pontiac, Mich., very wisely calls attention to the fact that it is the friction between the tire and the road that affords the ultimate means of propulsion for all types of car, that in cars which do not employ the friction disc method of transmitting the driving power absolute dependence is placed



PREMIER "CLUBMAN" CLOSED-FRONT ROADSTER



THE "4-40" CLOSED-FRONT TOURING CAR

torpedo body, being the most striking of the line. This, as heretofore, will be superimposed on two distinct chassis, one mounting a four cylinder, 40 horsepower engine, the other a six cylinder, 60 horsepower engine. In addition to the now popular closed-fronts, the Premier line of course includes the standard open types. They will be finished in a rich blue-black with panel lines and light striping. The wheels will be a special Premier gray, except on the limousines, where the running gear is the same blue-black finish as the body. The fenders are finished in black baked enamel and are of such proportions as to afford ample protection.

The motor cylinders are of close grained gray iron, cast in pairs, with valves on opposite sides, and the water jackets cast integral. The bore is 4½ inches and the stroke 5¼ inches. Aluminum cover plates cap the castings, facilitating the cleaning of the water spaces. The entire upper parts of the cylinders are water jacketed, this jacket extending one-half inch below the travel of the top of the piston. The greater part of the intake manifold is cast integral with the cylinders, thus heating the gases. Between the cylinder pairs is liberal room for long bearings, and the distance between the latter comparatively short. A feature of the Premier motor is the crank case, the engine base being made of a close grained semi-steel. This is well adapted to the maintenance of perfect alignment and the holding of screw threads for studs, and possesses sufficient

neto, or the low tension with Bosch magneto and jump spark with battery and coil. When the combined low and high tension are supplied a timer and four unit coil are used on the "4-40," and a distributor and a single unit coil are used on the "6-60." The low tension make and break system, of course, is the old Premier stand-by, and is, of course, retained.

The clutch is of the multiple disc type with 21 plates, having cork inserts, encased and running in oil. The transmission is of the selective sliding gear type, giving three speeds forward and one reverse. The gears are contained in an aluminum case. The power is transmitted to the rear axle by a shaft of liberal size, equipped with two universal joints packed in grease. The rear axle is internally ribbed and requires no external truss rod reinforcement.

The brakes have an effective surface of 526 square inches, and the drums are integral parts of the wheel hubs. The internal expanding members are of bronze and operated by the foot pedal, while the external contracting brakes are fiber lined steel bands, operated by a hand lever. All adjustments can be made from the outside, and two sets of equalizing bars ensure equal contact on each wheel.

The frame is of pressed steel, dropped at the rear, and narrowing slightly toward the front to assist turning in a short radius. The front axle is a solid, one-piece drop forging with the spring seats integral and entirely free from welds.

Semi-elliptic steel springs are used on

on friction developed between the members of the master clutch, that all cars are stopped by the friction of braking surfaces, and, further, that it is friction between tire and rail that causes all railroad trains to move, and friction between belts and pulleys that drives the wheels of the average factory. The disc form of automobile transmission, it is explained, is merely an extension of this universal principle one step farther than it otherwise is carried. The argument is set forth with graphic drawings in a little booklet which just has been issued and which also contains the specifications of the five styles of Cartercar—all of which, needless to add, are friction drive.

### Wherein Back-Fires and Back-Kicks Differ.

Back-fire is an expression very frequently misused, when a motor ignites prematurely and back kicks, but does not necessarily back fire. Back firing generally is caused by a very lean mixture. This burns slowly and ignites the next charge as soon as the valves open, an explosion resulting in the intake pipe or carburetter. Too rich a mixture will also burn slowly, but seldom back fire. A leaky valve, or one improperly timed, might cause it, as a flame can be blown through even a very small opening. Back kicking results when the spark is too far advanced and the motor is turning slowly, causing the charge to ignite before the piston has reached the center, and either checking or reversing the motion of the crank shaft.

**BUILT BY PITTSBURG PACKERS**

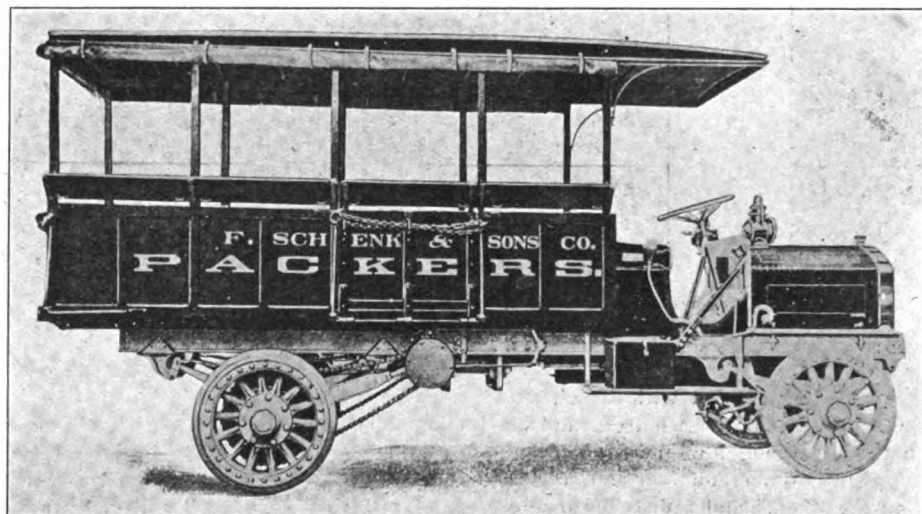
**Meat Men Pool Interests in Motor Truck  
—New Product Designed for  
Use on Hills.**

Recalling the historical adage about Mahomet coming to the mountain, it is related that a number of meat packers of Pittsburg some time ago experienced a desire to introduce the motor vehicle into their business, but failed of success for the reason that the market at that time did not afford a product that exactly suited their requirements. Hence—and the approach to the mountain is very literal when the

three-ton truck, as a matter of fact, is no less than 150 inches.

The motor, which is rated at 50 horsepower, is of the four cylinder, vertical pattern, water cooled, and mounted under the hood in front of the driver's seat. Its cylinder dimensions are  $5\frac{1}{4}$  by 6 inches and the cylinders are cast singly. It is provided with dual ignition, including the Remy magneto; Stromberg carburetter and the Hele-Shaw pattern of multiple disc clutch.

Final transmission of power to the rear wheels is by double side chain, the countershaft and distance rod construction being particularly heavy. The brakes also are of appropriate construction, the service members, which are of the contracting type,



THE NEW PACKERS THREE-TON MOTOR TRUCK

hills of Pittsburg are considered—some of them pooled their interests and produced a truck of their own. This bit of explanation serves to introduce the Packers motor truck, which has just been put on the market by the Packers Motor Truck Co., of Pittsburg. After more than a year of use, as it is claimed, it was decided to open a regular outlet for the machine, and stock models of one, two and three ton capacities speedily followed.

The design of the three types is practically the same, and follows rather conventional lines insofar as specifications are concerned. The accompanying picture shows the three ton model, which reveals no external peculiarities, about the only out of the ordinary feature that is visible being the side gates, which in addition to the rear entrance considerably facilitate loading. A point of especial excellence, which though not self-evident, is noteworthy, is that an extremely long wheel base is employed. The object of this, of course, is to reduce the overhang to its lowest possible terms, thus making a more uniform distribution of the weight on the chassis than is possible where the useful load is more nearly balanced over the rear axle. The standard length of base for the

being applied to drums at the extremities of the countershaft. The emergency brakes, which are actuated by a side lever, are of the internal expanding type and act directly on the rear wheels. Both front and rear wheels are of the artillery type, 36 inches in diameter, and shod with solid tires, the rear equipment being of the dual order. The front tires are of 5 inch size, while the rear ones are 4 inches in width. The chassis weighs 6,300 pounds. With the open body type the weight of the complete vehicle comes up to about 6,800 pounds.

**Effect of Turning Corners at High Speed.**

While it is required by law that automobiles shall be driven slowly in turning corners, the practice should be followed for a perfectly valid reason aside from that fact. Whenever a turn is taken at high speed, the centrifugal force due to the velocity of the machine, and tending to cause skidding, must be resisted by the tires. The consequence is that enormous strains are imposed upon the casings, which are very likely to cause rim cutting and which tend to produce abnormal wear just above the beads even though no immediate effect is noticed.

**CLEANLINESS IN THE GARAGE**

**Business Value of Careful Washing Indicated—How to Avoid Injury to Customers' Cars.**

Advice on the subject of car washing is usually received by garagemen about as gracefully as "hints on cleanliness in the home" by the average housewife. Nevertheless, it is a circumstance of no mean importance that many a motorist on tour is disgusted on pulling out of some country shop of a fair morning to discover little dabs of soap along the edges of the running boards, while close observation reveals the fact that the body panels are streaked with dirty and soapy water showing that they have been dried, and probably rubbed down, without being properly rinsed. It only requires a few experiences of this nature to spoil the appearance of even the most carefully varnished surfaces, while the ignorant or careless washer probably is directly responsible in most cases for the mummified appearance of so many cars of the cheaper grade that have seen only a season or so of use after being hastily turned out with limited coats of varnish.

The secret of good car washing, it is related by a man who ought to know, seeing that he is in the business, lies in the proper use of the soap quite as much as anything else. The soap should be dissolved in very hot water—and thoroughly dissolved too—the thick solution formed in this way afterward being stirred into the luke-warm wash water in the proper proportions. When this is done, and proper care taken not to rub grease collected from around the wheels into the polished surfaces, a good start has been made. Thereafter, it is quite as important to make sure that all the soapy water is rinsed off and the surfaces dried thoroughly before the car leaves the rack.

After all is said and done, old-time carriage washers are most successful in handling automobiles, once they have learned a few essentials concerning the work, like avoiding greasy sod pans when sponging off the car and refraining from playing the hose directly through the radiator and on the engine. That it is much easier to obtain ordinary "lumpers," who are anxious to become full fledged chauffeurs via the short and easy route of petty graft and patronage may account for the number of poor washers who are engaged and who, too frequently, are inclined to cover up their deficiencies by thinly coating poorly washed bodies with kerosene oil. If only the garagemen would bear it in mind that cleanliness in the garage, like cleanliness in the home, is next to successful achievement, it might be that fewer owners would have occasion to complain of the short-lived beauty of their cars.



## Concerning the Garaging of Commercial Cars

Despite hostile objections and more or less muttering on the part of the legitimate tradesmen whose perquisites were affected, several instances have been known in which a number of motorists successfully have carried out the plan of conducting co-operative garages for their mutual convenience and accommodation. Somewhat the same idea, though on a totally different scale, is being put into effect by operators of commercial vehicles in moderately large installations. Furthermore, there is reason to suppose that under some circumstances the plan is a good one and that considerable economies may be brought about by its application.

Generally speaking, when private motorists have clubbed together to open garages in company with a few of their friends, their sole object has been to rid themselves of what they called—or miscalled—the “robbery” practiced by professional garagemen and repairers. Under skilful management, enterprises of this nature have prospered to the extent of cutting out of the real expense the percentage that the garageman considered his rightful living wage. Sometimes the result has been as economical as anticipated. As often the gentlemen who expected vast economies to result have found that the robbery they fancied was being practiced was more imaginary than real.

Be that as it may, the motive back of the movement to establish co-operative garages among commercial motor vehicle operators is of an entirely different nature, though the ulterior object is the same. The principle involved is the broad one that the performance of any sort of undertaking on a wholesome plan results in a reduction of pro rata expense. Merchants who are accustomed to buying the entire output of a cotton mill in order to be able to throw print goods on their counters and undersell the retailer, who buys from the jobber, who buys from the manufacturer, are pretty apt to take a broad view of their delivery problem. They are apt to want to handle their motor trucks in quantities, buy their supplies and parts in as large lots as possible and to want to spread their maintenance costs over the largest possible area in order to reduce the unit cost.

If their own requirements are not sufficiently large to render the desired economy feasible, the natural tendency is for them to do one of two things. Either they will try to get their delivery work done by contract, or else they will seek some other merchant who is in a similar predicament

and try to arrange a co-operative method of car maintenance.

Sometimes the nucleus of the arrangement is an individual concern that, having solved the upkeep problem to its own evident satisfaction, is approached by another concern that is seeking a solution of the problem. Such a case recently was pointed out in New York City. In 1905 the firm of Aitken, Son & Co. purchased an equipment of five electric delivery wagons for its own use. Having looked over the ground pretty carefully, it had been determined that best results could be achieved only by retaining the cars under the firm's own management, and in consequence, a building was bought to house them properly and a competent manager hired to look after them.

Such was the evident success of the experiment that the heads of the neighboring concern of A. A. Vantine & Co. became interested and began an investigation. The result was that Vantine's equipment was purchased and later, under an arrangement private to the two companies, the second equipment was housed and cared for in the Aitken garage. Although both concerns are reticent about the actual details of their mutual experience, representatives of both are quoted as speaking in the highest terms of the arrangement both in regard to its economy and satisfaction in service.

Just here one point should not be overlooked. With this sort of equipment, requiring as small storage space as it does, considerable saving is effected by locating the garage as near as possible to the business center. With horse equipment, it frequently is necessary to maintain stables at some distance from the operating locality. This, of course, involves a considerable loss in “dead” mileage and also a loss of the time the equipment is on the road going to and from work. As being of an entirely different character and requiring for its proper upkeep and repair much less floor space per vehicle, the electric or gasoline equipment can be maintained within a relatively short distance of the store or warehouse at much less relative cost.

The general principle involved is that the maintenance within convenient radius of the business center of from one to five commercial cars may be expected to be unpleasantly high unless rare good judgment is exercised in overseeing it. Where the number of vehicles taken care of in a single establishment is greater than that, however, the expense per vehicle becomes propor-

tionately less as the number increases. Therefore the operator who has only a small equipment is forced to seek shelter in a public garage, thereby contributing to the profit of its owner, or else to undertake some sort of co-operative arrangement with another operator who is similarly situated.

Operators of large numbers of vehicles, of which R. H. Macy & Co. and the new establishment of Gimbel Bros., in New York, are prominent examples, of course, are in a position to carry, on their own garaging operations without reference to others. As time goes on there is no question that the number of such installations will increase. During the formative period, however, and always, so far as the small operator is concerned, the garage problem must continue to be more or less of a poser.

At present, insofar as the public garage is concerned, the operator of the commercial car is in a position to feel the influence of the pleasure car in this direction just as much as in every other one. Garagemen, as a rule, are subject to the demands and influence of the pleasure car owner; also, he is more or less biased because of the reputed ease with which real money can be pried out of his pockets. Consequently the garageman is influenced to improve his service in every way possible, to provide conveniences for chauffeurs and luxuries for patrons, to install all manner of handy contrivances for taking care of expensively appointed machines. But he is not particularly encouraged to look out for the wants of the commercial vehicle owner who expects his trucks to be on the road a stated number of hours every working day in the year, rain or shine, and who is more interested in keeping down charges than he is in helping pay a share on the insurance and taxes of an uptown “front” on the row.

Some day the dividing line will be drawn in this, as in other respects, between the two great divisions of the industry. In order to operate commercial vehicles successfully it is necessary that they shall have the best and most expert sort of care. Circumstances of both a business and mechanical nature render it possible to accomplish standard upkeep service at a reasonable figure only where wholesale operations are carried on. And the conclusion is plain to see.

Unless the small operators, of whom there always must be large numbers in any city or town, are afforded efficient garage service for commercial vehicles they will

have to resort to the co-operative plan of maintenance. It is too early in the history of the motor truck to determine whether or not this is altogether a wholesome tendency. But certain it is that the opportunity exists for the garage business, as an independent commercial undertaking, to be developed to meet this small but growing demand.

The inducement for the garageman to go into this field as a specialty is not great, to be sure, when compared to the "easy living" that is supposed to follow the acquisition of a few good customers, together with a lucrative agency and possibly a renting business on the side. But bearing in mind the annual increase of expense and decrease of profits in consequence of com-

## GASOLINE FOR COTTON PICKING

**Novel Agricultural Motor Solves Time-Honored Problem—Also Useful in Many Other Ways.**

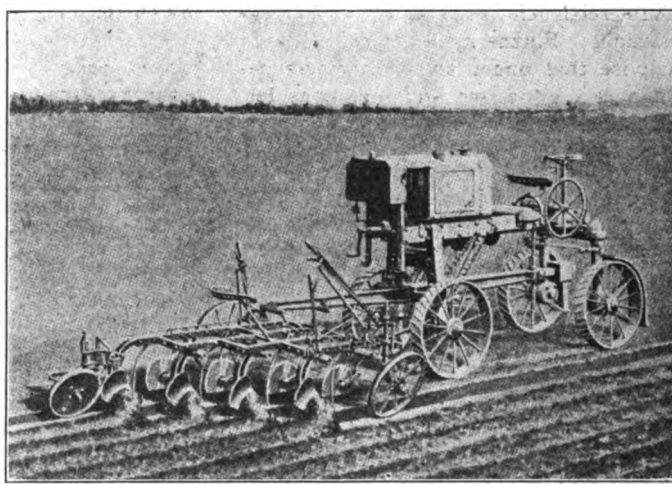
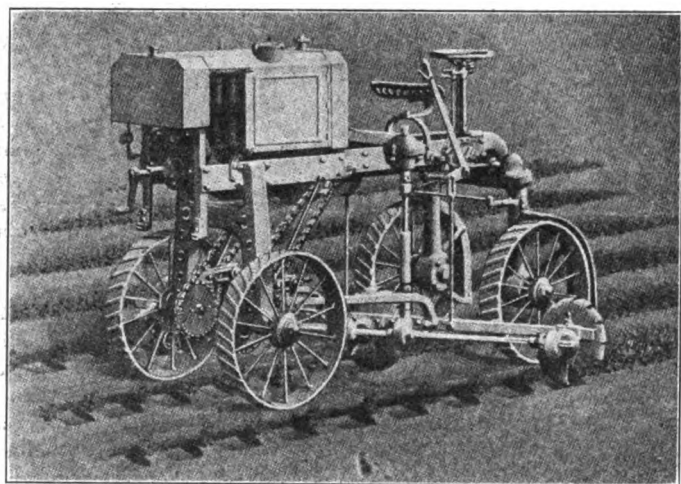
If first reports from Texas of the first experiments conducted there are borne out by future developments the gasoline engine may be said to have solved the problem, or one of the problems, of the South, i. e., the quick and economical picking of cotton. Hundreds of inventors and near-inventors have undertaken the solution and tens of thousands of dollars have been fruitlessly spent for the same purpose, but on the

a cultivator or by a stalk cutter attachment. The motor may be used for anything else from running a saw-mill to a cotton gin or a feed cutter.

The owners assert that "when generally introduced it will multiply the potential energy of the Southern laborer by at least 25."

### Says Car Makers Have Cornered Hay.

According to the best of belief on the part of horse owners in and adjacent to Harlem, New York City, U. S. A., the automobile manufacturers are responsible for the skyscraping prices of hay, oats and other animal food. Timothy D. Gleason, who has large livery stable interests in that neighborhood, declared at a meeting, held



NOVEL AGRICULTURAL MOTOR IN USE AS STALK-CUTTER AND PLOW

petition, as well as the certainty of the long-continued and sustained growth of the commercial side of the industry, it would seem that as a sound business proposition the garaging of commercial cars should not be without its attractions to men of good judgment and ambition.

This much is certain, the users of motor vehicles for business purposes are governed in their management of them by rules of business first and economy always. The man or men who can devise ways of reducing the costs that other men experience are sure of all the business they can handle; and within reasonable limits, they are welcome to all they can make for themselves in the transaction.

### To Start Motor Without a Crank.

Sometimes the crank of a motor becomes broken or disabled, making it necessary to start the engine by some other process. A good method by which this may be done is to jack up one of the rear wheels of the car and engage the high gear, leaving the clutch in. Then turn the wheel forward rapidly, which can be done very easily. When the motor starts, throw out the clutch, shift the gear from high to neutral and lower the wheel to the ground. The car is then ready to start.

Caruth farm, near Dallas, Tex., there recently were tested three mechanical pickers produced by the Price-Campbell Co., which reports say more than made good in the presence of 500 astonished spectators. The motive power of the machine is a 30 horsepower gasoline engine.

The three cotton pickers gathered the opened cotton, doing no harm to the many unopened bolls, the squares just forming, or to the plant. The cotton is snatched from the bolls by a battery of rotating steel fingers or spindles, then carried upward and deposited into sacks at the rear of the machine, and it is claimed that the machines will pick an acre an hour, and get about 90 per cent. of the fiber which is ready to be gathered. A claim of 800 pounds of seed cotton an hour is made for them in fields where the cotton is well fruited, or where it would produce three-fourths of a bale to the acre. The machine is operated by one man, who simply guides it much as a chauffeur guides a car. The machine does the rest. It also does more than pick cotton, as the accompanying illustrations serve to show. When stripped of its picking device, a plowing attachment can be bolted to the frame, and good work done with the 30 horsepower motor. Then this plowing attachment can be replaced by

a few nights ago, at a rendezvous called Nolan's Hall, that the feed interests are controlled by automobile manufacturers, whose scheme is to compel horse owners to buy cars. He may have been stirred up by the recent Maxwell-Briscoe company's comparative test.

Gleason stated that fodder costs twice what it did 14 years ago, and is anxious to find out where the \$1.40 he pays for a hundred pounds of baled hay goes; for by his word the farmers' share of that amount is but 23 cents and the tie wire and advertising of the hay can hardly eat up the remaining \$1.17. He contributed other statistics to the effect that there are 175,000 horses in Greater New York and 45,000 horse owners. He put the up-keep of each animal at from 75 cents to \$1 a day.

An organization of protest was formed, with Gleason himself as president and treasurer.

### Claims Record Motoring Population.

The hamlet of Lakeview, in Lake county, Ore., 15 miles from the California line, has a population of 761, and yet it has 40 automobiles, many of which are big touring cars. It is said that the place has more automobiles for its size than any other town in the United States.

## Stray Sparks

Chicago insurance agents are protesting against the new schedule in rates adopted by the Automobile Insurance Association. The competition of the London Lloyds is assigned as the reason for most of the difficulties there. A committee therefore is at work on a new schedule which it is hoped will prove more satisfactory all around.

The latest indictment against the automobile is likely to "come out in the wash." From Boston the yarn is sent out that

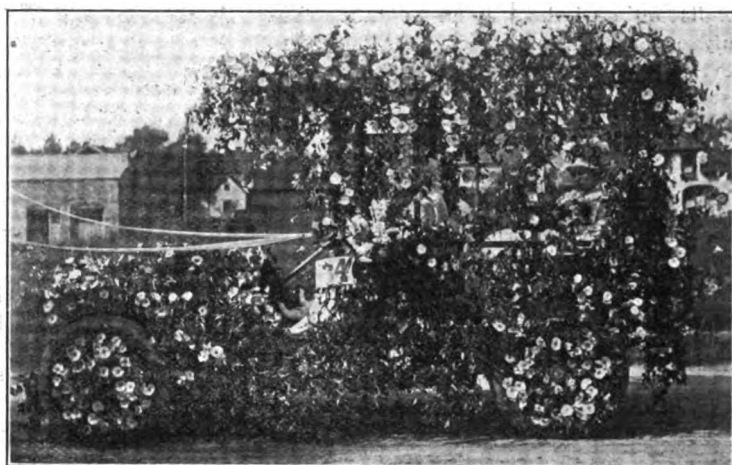
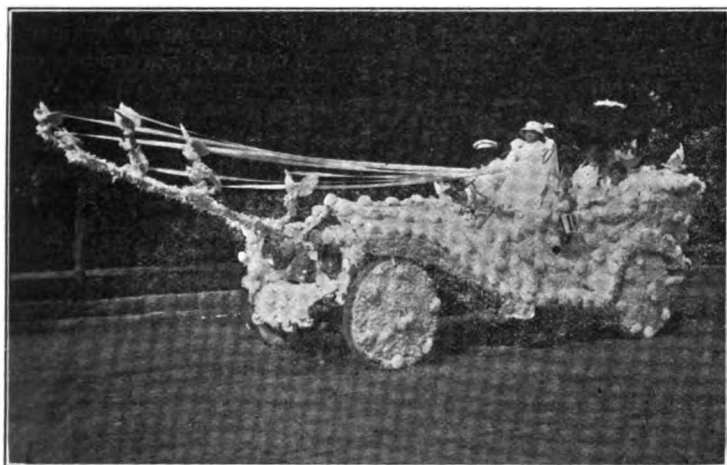
Thieves recently broke into the garage of James Wainwright near Monmouth Beach, N. J., and escaped with an expensive, high powered automobile. The chauffeur, who was sleeping overhead with clear conscience and perfect digestion, heard nothing, although the windows of his room were wide open. Exactly the same thing was done a few nights afterward in Nutley, also in New Jersey, at the country place of William Sargent.

Alleging that he had been permanently injured by an automobile belonging to Louis R. Spear, of Boston, president of the American Automobile Association, a farmer of Webster, Mass., by the name of George H. Stone, last week obtained a verdict for \$5,150 from a United States district judge

had lost track of 35 years ago, read the story and a reunion resulted. They had been living only a few miles apart for several years.

It is not alone for the army and navy that automobiles are to be impressed for public service. Last week, during the rush of big fires in New York City, the police under the unusual conditions jumped upon the running boards of passing private touring cars and commanded the drivers to hasten to the conflagration. The same thing was done by extra fire and salvage men. Burglars, too, are keenly alive to the advantages of such emergency carrying service, only theirs would be away from rather than toward "a given point," to use geometrical phraseology.

### TWO OF THE PRIZE-WINNERS IN THE DAYTON, OHIO, EXPOSITION AUTOMOBILE PARADE



STODDARD-DAYTON CARS OF CONGRESSMAN JAMES M. COX AND JOHN H. MCGEE

Chinamen are being smuggled across the Canadian line in automobiles, dressed as society women. It is declared that disguised by goggles, veils and picture hats dozens of them have paid liberally for such means of entry.

An "automobile campaign echo breakfast," whatever that may be, was given a few days ago in Chicago by the Illinois Equal Suffrage Association at the LaSalle hotel. An echo is something that returns, just as an automobile brings you home—if it is of the right kind. This appears to be a large year for those that can "come back" and for some, too, that find they cannot do so.

One of the strangest suits on record was lost a few days ago in the county court at Omaha in the action brought by William R. Craig for damages following the nervous shock of an automobile collision. Strangely enough Craig was not in either car that collided nor did the accident result in fatality. He merely asked to be reimbursed for the mental strain that he suffered as a casual witness of the accident.

and jury, sitting in Littleton, Mass. Mr. Spear himself was not in the car at the time of the accident, but nevertheless was held responsible.

Owners and managers of tall business buildings in Greater New York are said to be having a hard time securing elevator men and, as usual, in looking about for the cause, the trouble is laid at the door of the automobile. The demand for chauffeurs is alleged to have deflected many of the former runners of lifts, besides well nigh cutting off the list of recruits. Accordingly several large office buildings have fallen back on Italians, many of whom can talk so little English that there is need of sending an interpreter along on each 'vator.

So many instances are reported in which deserting chauffeur husbands have been located by their wives through newspaper reports of automobile collisions that it is really worth while to give the pleasant side of the same picture. Andrew Freeborough, of Pittsburg, got into print a few days since through rescue work in connection with an automobile going over an embankment. His brother, Henry Freeborough, whom he

Middleboro, down Cape Cod way, in Massachusetts, is pluming itself over the fact that it is the banner automobile town in the Bay State, or at least it thinks it is, according to late returns. Although the town has scarcely 8,000 population, 80 cars are owned there, or slightly more than one to every 100 inhabitants. Furthermore the average showing is thought to be the highest in New England. The place is particularly proud over the fact that it has a gasoline fish cart which goes over its route so speedily that the winds wafted from it, even in warmest weather, are not odoriferous.

Action has been begun by the Hessian Automobile Club of Germany against a peasant Reichstag member who concluded a tirade against automobilists thusly: "I should like to recommend the following as an eleventh commandment for all cartmen: 'Go and get yourself a license for firearms, and then a thoroughly serviceable revolver, so that you can protect yourself when you are fallen upon by the modern vermin which renders the country roads unsafe and trifles with human life.'" The prosecution is on the charge of inciting to the

committal of crime. Taking exception to the word "vermin," a number of automobile clubs have sued him for malicious libel and defamation of character. He already has apologized profusely.

#### Hotel Keeper Suppress a Speed Trap.

Touring motorists have at last brought to book the city of Danbury, Conn., which was conducting a speed trap at the small triangular park where West street intersects Division street. Car owners were so indignant over the way they were being mulcted that they carefully avoided the place, which was possible without going far out of their way.

The Danbury hotel owners speedily began to notice a shrinkage in their receipts and found that their patronage was going to other towns. Accordingly they put up such a mighty plaint to Mayor Gilbert that he discontinued the trap in no time. The only question is, will it stay discontinued? Several months ago notices to motorists were sent through the trade press and other channels as to the proper course to be followed in passing the park. The police, however, insisted upon the turn being made in exactly the opposite direction from that given in the instructions. Among several of the victims fined the notion prevails that there was really no conflict in authority, the whole scheme being to squeeze easy money out of offending visitors.

#### The Chief, He Fixes 'Em, B'Gosh!

A drastic measure is being applied by the chief of police of Decatur, Ill., to automobile owners who do not have lamps on the rear of the machine, or on whose machines the rear number plate is not properly illuminated by the rays of the lamp, as required by state law. As soon as the chief hears of a car standing anywhere, on which conditions are contrary to the legal demands, a bicycle policeman is despatched with a long chain and lock, which he passes around the steering post and through the spokes of the front wheel and locks. The chain remains locked in this position until the owner has complied with law, and then, by heck! the chief is satisfied and indulges in a grin.

#### About Gates McGarragh's Garage at Goshen.

The town of Goshen, N. Y., last week narrowly missed acquiring a novelty in the garage line. A grain dealer who handles fertilizer as well as plaster, mixed his merchandise in delivering it, bringing about as unique an experiment as the cement model houses of Thomas A. Edison. The prospect grew out of the fact that Gates McGarragh, president of the Mechanics National Bank of New York, is building a garage in Goshen, for the exterior of which a patent plaster is being used. The supply ran short, so word was sent to the dealer to rush over a two-horse load in sacks.

After about half of the invoice had been stirred together and applied, the telephone rang sharply and a frantic voice inquired if any of "that plaster" had been used. "Half of it," was the contractor's answer. "Why, that wasn't plaster; it was fertilizer," shrieked the dealer. "I thought it didn't set very well," came the response.

#### New York Hotel Keepers Bid for Tourists.

Viewing with envious eyes the profitable patronage acquired by New England's shrewd bonifaces, a number of hotel owners of the central part of New York state have formed the "Empire Tours Association," with the purpose of diverting some of the trade toward their houses. They intend to erect guide posts and point out the undoubted natural beauties with which their part of the country is endowed. The officers chosen for the first year were: President, William E. Leffingwell, Watkins Glen; vice-president, J. D. Price, Coopers-town; second vice-president, Frederick W. Rockwell, Albany; secretary, Lorent Johnson, Watertown; treasurer, U. U. Kelly, Cooperstown.

#### Driver Who Was a Public Danger.

Careening from side to side on Third avenue, New York, and missing collision with the pillars of the "elevated" railroad by mere inches, on Monday last, an automobile belonging to and driven by Morris Weinstein, a drug salesman, brought up with a crash against a trolley car, damaging the latter and wrecking itself. When Weinstein was taken to the police station it was found that he was suffering from neurasthenia and was a victim of locomotor ataxia, which condition made it practically impossible for him to control his muscles. Despite the fact, he had purchased the automobile with a view of benefiting himself by outdoor life.

#### Provides Motor Cars for the Insane.

Although automobile ambulances have been in use in New York and other cities for several years, they heretofore have been confined to the conveyance of sick or injured persons. A few days ago, however, there was put into service the first automobile ambulance ever built for the exclusive handling of insane patients, and attached to Bellevue Hospital, New York. Previously insane patients were taken to Bellevue in police patrol wagons. Now the police will have nothing to do with the handling of such cases.

#### New Way to Get Food and Lodging.

In Rochester, N. Y., a new style of graft has come to light. Several days ago a stranger, who since has been identified as John C. Armbruster, of 25 Manhattan street, New York City, staggered into a hotel, covered with dirt and blotches of what seemed to be blood, gasping out that he had been hurt by an automobile. He

was carried to a room, washed, etc., and finally taken to a hospital, where he was kept for several days, living upon the fat of the land. Then someone discovered that he had been faking the accident, and an unsympathetic judge sent him to jail for six months for the "joke."

#### How a Kitten Wrecked a Motor Car.

That it is oftentimes dangerous to carry a pet animal unconfined in an automobile was demonstrated a few days ago by an accident at Long Branch, N. J., that completely wrecked the car of Mrs. Joseph McDermott, wife of the county clerk, and severely injured the three occupants. Mrs. McDermott was attempting to carry home a kitten that had been given her. The frightened cat fought so hard to escape that the chauffeur sought to lend assistance and took his hand off the steering wheel for an instant. That instant, however, was sufficient to bring the machine up against a post with a crash that threw everybody out.

#### When a Collision Becomes an Assault.

Thirty days in jail was the sentence meted out by New York's Court of Special Sessions to Philip Forsythe, a chauffeur, for assault in the third degree. On April 17th last Forsythe ran his automobile into a wagon driven by William McLaughlin, the latter sustaining injuries to his left arm and side. At Forsythe's trial last week the charge of assault was upheld because the chauffeur yelled at the driver of the wagon "to get out of his way, or he'd knock him out." It is this the first time a chauffeur has been found guilty of assault as the consequence of a collision and sent to jail for it.

#### Tragedy that Points to Obvious Moral.

Cranking the motor, with gears left in mesh and the emergency brake of which had been released by some boys "monkeying" with the car, caused the instant death of C. Wilder, a photographer of Prosser, Wash. The car jumped forward, knocked him down, rolled over him and then stopped. The wheels had passed over his neck and broken it. Many persons who were passing along at the time and who saw the man's feet protruding from beneath the car, thought he was at work making repairs. He lay for a long time without anyone coming to his assistance.

#### Novel Means of Exposing Delinquents.

One of the Chicago gas companies has a new idea for the utilization of the automobile. It has furnished its inspector with a gasoline vehicle painted bright red with brass rods, a gong and general appointment not unlike a fire patrol wagon. When the equipage dashes down the street to shut off a meter for nonpayment of a bill, everyone in the neighborhood will know of it as soon as if an ambulance, fire engine or trolley emergency wagon had been along.



Volume XXV.

New York, U. S. A., Thursday, October, 20, 1910.

No. 3

## TO BUILD AMERICAN CARS ABROAD

**Briscoe Sails to Establish a Factory in England—Moderate Priced Models to be Reproduced for Foreign Trade.**

When it was given out last week that Benjamin Briscoe, president of the United States Motor Co., would sail to Europe, chiefly on pleasure bent, it was not stated that much of the pleasure would be of the sort that comes of firmly planting his company's standard on foreign shores. For, as a matter of fact, the principal object of Mr. Briscoe's mission—he sailed yesterday on the Lusitania—is to establish an American automobile factory in Great Britain.

For some time the United States Motor Co. has been investigating foreign conditions, and finally reaching the conclusion that the demand for moderate priced cars, such as are included in the Maxwell, Brush, Sampson and Stoddard-Dayton lines, was sufficiently large to justify more than the appointment of agencies, Mr. Briscoe decided that the best way to meet the demand was by actually manufacturing the cars in the center of the demand. Accordingly, and before he returns, there will be organized in England a company for the purpose.

It probably will be styled the United Kingdom Motor Co. and will be located near London. Several sites have been considered, but the exact location of the plant will not be determined until Mr. Briscoe has personally inspected the various sites which are available for his purpose. Once this is settled, it is the intention of the United States Motor Co. to transfer its designs and duplicate tools to England, but it will purchase the necessary machinery in that country.

The foreign company at first will devote its principal attention to Great Britain, Germany and Russia, the plan being to establish branch houses in these several countries and later to "invade" all other of the important European countries.

Mr. Briscoe, of course, will spend most of his time in England, and also visit several of the automobile plants in France, studying the foreign conditions generally. He will be absent about five weeks. Mrs. Briscoe accompanies him.

## Bookkeeper Starts Bankruptcy Proceedings.

William P. Young, bookkeeper of the Indiana Auto Parts Co., Marion, Ind., has filed a petition in bankruptcy against his employers, asking that the company be placed in the hands of a receiver, and demanding \$50 damages for labor performed which he cannot collect. He furthermore utilized his knowledge of the company's affairs as shown in their books, and claimed that the corporation is insolvent, as it owes \$40,000 for labor, materials, supplies and for money borrowed, while its total assets are but \$30,000. Other creditors of the company are said to have become alarmed and to be preparing to take similar steps.

## Reo and Owen Amalgamation Pending.

Negotiations are pending whereby the Reo Motor Car Co., of Lansing, Mich., will take over the Owen Motor Car Co., of Detroit, but despite the fact that press despatches have stated that the deal had been consummated, F. R. Bump, sales manager of the Reo company, on Monday last told a Motor World man that any alleged confirmation which had been given out was not official. That the transaction is likely to be consummated, however, there is small doubt.

## Wood Sued for Selden Infringement.

Suit for alleged infringement of the Selden patent was filed on Monday last, 17th inst., against the W. A. Wood Automobile Mfg. Co., which recently was organized to produce gasoline cars in Kingston, N. Y., which town is in the Judicial Southern District of New York. Subpoena was served on Samuel S. Slater, who as director and counsel for the company gave written admission of service on behalf of the defendant company.

## VOTING TRUSTEES ARE SELECTED

**Wall Street Men Who Will Shape General Motors' Destinies—Preparing to Pay Bills and Consolidate Plants.**

Voting trustees will be the official designation of the Wall Street men who for the next five years will control the General Motors Co., in accordance with the terms of the \$15,000,000 loan which they advanced.

These trustees are: James N. Wallace, president of the Central Trust Co., of New York; Frederick Strauss, of J. & W. Seligman & Co., New York; James J. Starrow, of Lee, Higginson & Co., Boston; Anthony Brady, New York, and W. C. Durant, Flint, Mich., the last named being the head and front of the General Motors' organization.

The fact that the trustees had been selected was made known by a circular letter to the General Motors' stockholders, inviting them to exchange their shares for "voting trust certificates" and which, incidentally, indicated that the Wall Street interests involved are sufficiently powerful already to have arranged for the listing of the certificates on the New York Stock Exchange, into which lambs have been known to gambol. The circular letter in question, which is dated New York but which bore the Flint, Mich., postmark, is as follows:

"For the purpose of liquidating the indebtedness of and providing necessary working capital for the General Motors Co. and its constituent companies, an issue of \$15,000,000 of 6 per cent. five-year first lien gold notes has been sold to Messrs. J. & W. Seligman & Co., of New York, and Messrs. Lee, Higginson & Co., of Boston (issuing houses), with other prominent banking interests associated.

"The agreement with the bankers provides that during the life of the loan the financial affairs of the company shall be supervised by a 'voting trust' with a majority of the capital stock deposited with



the Central Trust Co., of New York, to insure such control.

"The agreement further provides that every stockholder of the General Motors Co. shall have the privilege of exchanging present holdings of preferred and common stock (either stamped or unstamped) for preferred and common 'voting trust' certificates, the time for exchange being limited to Oct. 20, 1910. The voting trust certificates will be listed on the New York stock exchange, thus protecting their negotiability and incidentally enhancing their market value. The present preferred and common stock certificates will not be listed on the exchange.

"The holders of voting trust certificates are entitled to all benefits and rights, including dividends, belonging to the certificates of stock deposited, except the right to vote thereon during the period that said loan continues outstanding."

Detroit has been the sole selling market of the stock while it has been unlisted, but listing in New York will of course transfer the activity to that city, and whether the lambs will digest it more freely than when the wand was waved in Detroit, where the quotations last week were 51 for common and 65 for preferred, remains to be seen.

According to the stories from Flint, the entire indebtedness of the General Motors Co. and all of its subsidiaries will be paid in full before the end of the present month. It is announced also that henceforth a "conservative policy" will be pursued and that "concentration in Flint" will be a part of that policy, which is taken to mean that all save the larger plants now located in other cities will be transferred to and be consolidated with the Buick company's property in Flint.

#### Bucyrus to Bring Forth a Car.

The Forth Motor Car Co., of which C. R. Forth and M. G. O'Brien, of Mansfield, O., are the moving spirits, has secured possession of a one-time steam shovel plant in Bucyrus, O., and is placing it in condition for the purposes of automobile manufacture. The car which will be produced is the design of Forth, who has had experience in the Packard, Overland and other factories, and is claimed to incorporate a number of innovations. It is stated that frames and other parts already have been ordered and that actual work in the Bucyrus plant will commence within ten days.

#### Price List of Lions is Revised.

Because of increased facilities which permit of a larger output the Lion Motor Car Co., of Detroit, has revised the price list of its Lion 40 horsepower cars as follows: Touring car, listed at \$1,700, reduced to \$1,500; four passenger baby tonneau, listed at \$1,700, reduced to \$1,475; two passenger roadster, listed at \$1,650, reduced to \$1,450. In each instance, the new price includes complete equipment.

## STANDARDIZATION IS STARTED

### First S. A. E. Committee Takes Up Its Task—Meets in Cleveland and Outlines Desirable Frame Standards.

The work of standardization to which the Society of Automobile Engineers has committed itself now has been fairly inaugurated, the first of the many subcommittees that are engaged in the task having met in Cleveland on Monday last and assumed its allotted burden. This subcommittee was the one entrusted with the standardization of frame sections. The members present were as follows: W. H. Van Dervoort, Moline Automobile Co.; James H. Foster, Hydraulic Pressed Steel Co.; L. R. Smith, A. O. Smith Co.; W. P. Kennedy, Studebaker Automobile Co.; Coker F. Clarkson, general manager Society of Automobile Engineers.

The current practice in frames for motor cars is marked by little uniformity in sizes and proportions of the sections, although it is apparent that a smaller number of sections would be sufficient and reduce the tool cost; increase the output of all presses by reducing change of tools; reduce the number of different sizes of stock required, and also the number of variations in the sizes of all parts fastened to automobile frames.

It was the sense of the Cleveland meeting that the frame as an element of automobile design should receive more attention in the initial stages of laying out a car model, with relation to the disposition of other elements of the machine, such as power equipment, transmission mechanism, springs, axles, body, etc. As an extreme case of putting the cart before the horse, a few designers have been known to order their motors, transmissions, bodies and other parts before giving the frames, to which they are to be attached, a thought.

The committee in its report will recommend the quality of steel to be used in frames, specifying the chemical composition, physical properties and heat-treatment desired. This is one of the two divisions of the subject of standard frame sections.

The other division is the design of frames generally, and it is believed that standardization can be very effective, without in any way throttling progress or the development of meritorious new styles of frames.

The matter of design will be subdivided somewhat as follows:

- Side bars—1. Main section; including (a) thicknesses of metal, (b) thickness relative to depth of section, (c) width of flange.
2. Standard front ends, of which there are said to be a thousand current designs of frame front ends.
3. Standard taper for rear end.
4. Uniform radii of curves and depth of

drop for drop frames and double-drop frames.

5. Main width of frame at rear end.

6. Offset of side rail to produce front end width. Proportion of length of offset to amount of offset.

Cross members—7. These are straight and curved. As to the former, matters to be considered are standard radius and length for integral gussets, which should preferably, as a matter of cost of production, be on the cross bars instead of on the side rails; as to the latter (curved cross bars), standard radii and amount of drop of front member. And in general harmony of design with relation to strength and weight of side bars.

Sub-frames—8. Dividing into (a) amount of drop, (b) width between engine bars and (c) taper of engine bars.

Diagrams will be produced showing ways of economizing on material to arrive at minimum waste without interfering with merit of design; amount and place of material that should remain after holes are drilled for assembling cars; preferred path for holes; advisable lips and lugs on cross members and outside fittings; spacing of rivets.

It is expected that a definite report covering these various items will be rendered within 30 days.

#### Making 3-in-One Oil in Canada.

The 3-in-One Oil Company of New York, whose well known lubricant now is in prime demand for magneto use, has established a branch factory in Canada, and hereafter will fill all Canadian orders from that plant. This move, of course, eliminates considerable red tape and delay and also will result in a considerable saving of customs duties.

#### Michigan General Motors Increases Capital.

The General Motors Co. of Michigan, an offshoot of the parent company of that name, has certified to an increase of capital stock from \$10,000 to \$100,000, "for the purpose of securing further capital for investments." The certificate names as the principal stockholders, W. J. Mead, W. C. Durant and Standish Backus.

#### Bretz Opens a Branch in Detroit.

The J. S. Bretz Co. has established a Western office and salesroom at 1215 Woodward avenue, Detroit, of which the company occupies the entire second floor. H. J. Porter and J. W. Hertzler, who represent the Bretz interests in the West, will make the new place their headquarters.

#### Mitchell Official Goes to Europe.

Henry Plow, assistant treasurer of the Mitchell-Lewis Motor Co., of Racine, Wis., sailed last week to Europe on a business trip. He will be absent about two months and will spend most of his time with the agency at Paris.

**ROTARY VALVE RAISES RUCTIONS**

**Much-Involved Case Involving Distributor  
for Two-Cycle Engines—Retracted  
Affidavit Figures Unpleasantly.**

Testimony was to have been taken at Sandusky, O., on Thursday last, 13th inst., under the direction of the Scientific Research Co., of New York, which is composed of A. Elliott Ranney, formerly the Elmore agent in that city, and associates, having as its purpose the investigation of the claims of Krebs & Bachle to have invented a "rotary distributor," embracing the shape and design of a rotary valve for two-cycle engines. The testimony, however, was not taken. The action was started by order of the United States patent office, issued May 17, 1910, under the "interference" provision of the patent law, and should have been closed on or before October 15th, 1910, in order to be valid under the six months limit clause.

When the attorneys for the Scientific Research company and the Elmore company reached Sandusky on October 13th, to be present at a conference set for that date, at which a number of witnesses living in Ohio were to be examined, the majority of these witnesses could not be found, nor could they be reached by telephone. The result of the remarkable elusiveness of the necessary witnesses was that this interference suit fell through. Immediately after the "meeting" in Sandusky Sigmund Herzog, of New York, attorney for the Scientific Research Co., received a communication from J. Asa Field, the chief witness, in which the latter asserts that he had been mistaken when he made affidavit to the effect that one George Holloway, formerly superintendent of the Elmore Mfg. Co., had made the drawings relating to the "rotary valve," and stating that these in reality were produced by one A. H. Dalzell, who at present is the Elmore agent in Rochester, N. Y. He admitted somewhat incautiously that he had been seen by the attorney for the Elmore company, and that the latter had convinced him of the error which he had made in his former affidavit. The letter, according to Herzog, will be used in an action to be brought against Field in the United States court.

The patent which is at the bottom of the whole matter was issued to Bachle and Krebs on March 3, 1908, and bears the number 880,958. It comprises a rotary distributor, and is quite specific in its claims. A very similar patent, No. 895,194, based on much broader lines, was granted to one Radcliffe on August 4, 1908. When Radcliffe learned of the infringement suit to be started against the Elmore company he at once signified his intention of proceeding

against the same company on his own account, for infringement of his patent. So that at present there is a promise of two different suits being started by two different people, based on two different patents, against the Elmore company for infringement of either one or the other of these patents.

The first results of "the meeting that failed" are the withdrawal of Sigmund Herzog, attorney of the plaintiff, from the patent case, and the probability of having the whole matter threshed out in the United States Criminal Court in the hearing of the charges brought by Herzog against J. Asa Field for his "erroneous" affidavit, which he afterwards had occasion to qualify considerably.

**Jury Decides Watt is Bankrupt.**

It required but 15 minutes for a jury in the United States District Court at Detroit last week to decide that the Watt Motor Car Co., of this city, was bankrupt, as alleged by petitioning creditors, among whom were several officers of the company. The rather unusual procedure of submitting such a case to a jury was due to the representation of the Watt company's president, M. J. Delaney, that it was solvent. He did not, however, take the stand to refute the statements of the vice-president and bookkeeper of the concern that its liabilities are \$14,020 and its assets but \$5,000 plus an interest in a plot of real estate. The Watt company is a typical example of the "mushrooms" to which the feverish automobile interest in Detroit gave growth. It built two cars and then went prospecting for money and a factory. It came near getting both in Lapeer, Mich., but the deal fell through and a debtor seized one of the two cars; a petition in bankruptcy followed in due course.

**Pioneer Brooklyn Dealer Dead.**

Isaac S. Remson, who died on Thursday last in Brooklyn, N. Y., was one of the first automobile agents in that borough, if, indeed, he was not the pioneer. He was about the earliest of wagon dealers to realize the future of the motor car and established an automobile department in connection with the wagon business of the Remsen Mfg. Co., now a stock concern, 28 years old, of which he was president. The Remsen company for years held the Brooklyn agency of the Locomobile.

**Witherbee Files a Personal Petition.**

Thos. S. Witherbee, residing at 526 West 111th street, New York, who has been engaged for many years in the manufacture of electrical goods, individually and as general manager of the Witherbee Manufacturing Co., and Thomas Battery Co., at No. 438 West 42d street, No. 1912 Broadway and No. 51 West 63d street, has filed a petition in bankruptcy. He places his liabilities at \$7,174 and has no assets.

**E-M-F MEN GO INTO MOTORCYCLES**

**Brownson Resigns His Offices and Others  
Join Him—Flanders Interested but  
Will Remain with E-M-F.**

R. M. Brownson, secretary and treasurer of the E-M-F Co., has resigned those offices to become president and general manager of the Pontiac Motorcycle Co., a \$600,000 organization which just has been formed in Pontiac, Mich. Max Wollering, former production manager of the same concern, also has relinquished that position to become identified with the motorcycle enterprise, of which E. LeRoy Pelletier, the E-M-F's famous publicity manager, is a stockholder, and in which he is to play an active part. Other stockholders in the Pontiac Motorcycle Co. are Dr. J. B. Book and Charles L. Palms, two of Detroit's most foremost capitalists, who also were heavily interested in the E-M-F Co. until its sale to the Studebaker interests.

The fact that so many well known men are going into the motorcycle industry has created a buzz of comment in the trade, and because that Brownson was the right-hand man of President Walter E. Flanders of the E-M-F Co., reports have been freely circulated that Mr. Flanders himself was to leave the E-M-F organization to take up the reins of the motorcycle enterprise. But while Mr. Flanders freely admits that he is a large stockholder in the Pontiac Motorcycle Co., he scouts the idea that he has any intention of fulfilling the rumors or predictions that have been made regarding his severance of relations with the E-M-F establishment. He states that he has invested in the new motorcycle company because the men who compose it have been very closely associated with him for several years, and because he has the utmost confidence in their ability.

"Regardless of previous accomplishments," he added, "I do not consider that my task in the automobile industry has yet been fulfilled. In fact, I feel that we have but just begun. The E-M-F Co. is today the third largest in the licensed association, and it is my ambition to make it first. My interest in the motorcycle business will not in any way demand my own time, and there is no truth in the reports to that effect which have been circulated by competitors of the E-M-F Co."

**Tire Holders in Infringement Suit.**

The Gilbert Mfg. Co., of New Haven, Conn., has brought suit in the United States Circuit Court at Hartford against the Post & Lester Co., alleging infringement of the Fredson E. Bowers patents on spare tire holders. The patents bear date December 3, 1907, and were assigned to the Gilbert company on December 15, 1909.

**The Week's Incorporations.**

Kalamazoo, Mich.—Aldrich Auto Co., under Michigan laws, with \$5,000 capital.

Lemmon, S. D.—Lemmon Auto Co., under South Dakota laws, with \$10,000 capital.

Sioux Falls, S. D.—Fawick Motor Car Co., under South Dakota laws, with \$150,000 capital.

Delphos, Ohio—Mueller Implement & Auto Co., under Ohio laws, with \$75,000 capital. Corporators—John Mueller and others.

Hamilton, Ohio—Central Motor Co., under Ohio laws, with \$20,000 capital. Corporators—D. H. De Armond, C. J. Jones and others.

Seattle, Wash.—Independent Auto & Supply Co., under Washington laws, with \$10,000 capital. Corporators—S. A. Neff, W. B. Neff.

Chicago, Ill.—Adams Brothers Co., under Illinois laws, with \$10,000 capital; to deal in automobiles. Corporators—C. R. Jones, W. D. Tuff, J. B. Deibler.

Indianapolis, Ind.—Keystone Auto Co., under Indiana laws, with \$5,000 capital; to deal in motor vehicles. Corporators—C. F. Redding, A. Amanna, Josie Redding.

Indianapolis, Ind.—Capital Auto Co., under Indiana laws, with \$5,000 capital; to deal in motor vehicles. Corporators—C. S. Grant, Samuel Glick, C. C. Pettijohn.

Chicago, Ill.—Premier Sales Co., under Illinois laws, with \$15,000 capital; to deal in automobiles. Corporators—Henry W. Wales, S. S. Gorham, Gilbert Noxon.

Charlotte, N. C.—Charlotte Motor Car Co., under North Carolina laws, with \$3,000 capital; to deal in motor vehicles. Corporators—A. Burwell, E. F. Stenerson and others.

Indianapolis, Ind.—Cadillac Automobile Co., under Indiana laws, with \$20,000 capital; to deal in automobiles. Corporators—E. W. Steinhart, W. M. Fisher, Frieda E. Werler.

Toledo, Ohio—Dusseau Fore & Rear Drive Auto Co., under Ohio laws, with \$100,000 capital; to manufacture newly patented automobile. Corporators—D. V. Dusseau and others.

Milwaukee, Wis.—Auto Supply Co., under Wisconsin laws, with \$20,000 capital; to deal in accessories and supplies. Corporators—Oscar F. Fishedick, J. D. Babcock, J. T. Drought.

Detroit, Mich.—Brown Wind Shield Co., under Michigan laws, with \$5,000 capital; to manufacture automobile wind shields. Corporators—Benson Brown, Edgar Murray, Floyd I. Benson.

Chicago, Ill.—Fred T. Seegar & Co., under Illinois laws, with \$2,500 capital; to conduct a garage and rental business. Corporators—William J. Lavery, Leon D. DeBost, George L. Cook.

Chicago, Ill.—Sherman Auto Co., under Illinois laws, with \$1,000 capital; to operate a garage and do general renting business. Corporators—Timothy D. Hurley, Otto Beer, Lee S. Lerosky.

Atlantic City, N. J.—Harris Automobile Co., under New Jersey laws, with \$60,000 capital; to deal in motor vehicles and accessories. Corporators—William B. Loudenlager, J. B. McDevitt and others.

Los Angeles, Cal.—Thomas-Mercer Motor Car Co., under California laws, with \$50,000 capital, \$500 of which is paid in; to deal in automobiles. Corporators—A. M. Young, A. J. Wilson, F. W. Force.

Detroit, Mich.—Day Automobile Co., under Michigan laws, with \$300,000 capital; to manufacture utility motor car. Corporators—Thomas W. Day, Hugh Jennings, Cameron F. Roberts, Wallace E. Brown.

Pekin, Ill.—Pekin Garage & Outing Co., under Illinois laws, with \$5,000 capital; to do general automobile and garage business. Corporators—Walter E. Green, Herman Kaemmerling, William R. Kaemmerling.

Philadelphia, Pa.—National Association of Automobile Owners, under Delaware laws, with \$100,000 capital. Corporators—J. E. Rice, Harrisburg, Pa.; H. C. Long, R. L. Van Dusen, Philadelphia, Pa.; F. H. Hoffecker, Wilmington, Del.

Oklahoma City, Okla.—Northwest Motor Co., under Oklahoma laws, with \$100,000 capital; to manufacture and deal in automobiles and automobile engines. Corporators—L. R. Weiss, Charles E. Sockler, Charles P. Wickmiller, Earl Worl.

Brooklyn, N. Y.—Powell Engine Corporation, under New York laws, with \$50,000 capital; to manufacture automobiles, machinery, engines, etc. Corporators—Luther P. Powell, Royston W. Powell, Chas. I. McLaughlin, all of Bensonhurst, L. I.

**Recent Losses by Fire.**

Grafton, N. D.—McKay Bros., garage and several automobiles burned. Loss, \$20,000, with only \$750 insurance.

Long Beach, Cal.—Pacific Garage; building and 20 automobiles destroyed. Loss, \$40,000. Gasolene tank on motorcycle exploded.

Pittsburg, Pa.—G. B. Gordon's garage on Forbes street; building damaged, one automobile wrecked; two men severely injured. Loss, \$6,000.

New York City, N. Y.—Dryer's Automobile & Carriage Warehouse, 221 West 37th street; top floor wrecked, 50 carriages burned, several automobiles damaged. Loss exceeding \$25,000.

Richmond, Va.—Richmond Motor Co.'s garage, 319 West Main street; building destroyed, ten automobiles burned. Loss, \$25,000. Caused by man stepping on match on floor while chauffeur filled gasolene tank near by.

**Changes Among Prominent Tradesmen.**

Ernest L. Smith has resigned the sales management of the Grant-Lees Machine Co., of Cleveland, to become Western representative of the R. I. V. Co., of New York. He will make Detroit his headquarters. As he previously was connected with the Standard and the Timken roller bearing companies, he is no stranger to his new duties.

Claude S. Briggs, former president of the Krit Motor Car Co., of Detroit, Mich., who recently sold his holdings in and retired from that company, has joined the Brush Runabout division of the United States Motor Co. He will be located in Detroit where he will assist President Frank Briscoe, of the Brush company, in the sales department.

R. L. DeLisser, brother of Vice-President Horace DeLisser, of the United States Motor Co., has joined the metropolitan staff of the United Motors New York Co. Previously DeLisser was with the Maxwell-Briscoe Motor Co., at Tarrytown, N. Y., and the Columbia Motor Car Co., at Hartford, Conn. He will have charge of the Columbia interests in New York.

Orlando Webber, one of the pioneers of the industry in the West and until recently manager of the Palmer-Singer branch in Chicago, finally has removed to the East and become sales manager of the Palmer & Singer Mfg. Co., with headquarters in New York. The berth in Chicago left vacant by his removal has been filled by the appointment of his brother, Charles Webber.

Carl Wallerich, who recently resigned the sales management of the Haynes Automobile Co., of Kokomo, Ind., to join the staff of the Willys-Overland Co., at Toledo, Ohio, has been appointed a district manager of the latter company. His territory embraces Indiana, Illinois, southern Michigan and southern Missouri, and includes the cities of Chicago, St. Louis, Detroit and Indianapolis.

Don C. McCord has been appointed sales manager of the Marion Motor Car Sales Co., of Indianapolis, which hereafter will market the Marion car, which previously was handled by the Willys-Overland factory organization. McCord for three years was the Overland factory representative on the Pacific coast. His chief assistant is William D. Myers, for some time assistant sales manager of the Overland company, with offices at Indianapolis. Their headquarters will be at the Marion factory in the latter city.

**Increases of Capital.**

Racine, Wis.—Racine Mfg. Co. increases capital from \$400,000 to \$600,000.

Detroit, Mich.—General Motors Co. of Michigan increases capital from \$10,000 to \$100,000.

IN THE RETAIL WORLD.

R. E. Donaldson, of Milford, Ia., has sold his garage to Unger & Bowman.

A new garage is being built at Corning, Ia. Henry Knolla will manage it.

Glencoe, Ill., is to have another garage. Sidney B. Cahn is building it at a cost of \$5,000.

George Brown, of Maxwell, Cal., has "seen the light" and is building a garage in that town.

The First Implement & Automobile Co. has been organized and has commenced business in Vinton, Ia.

G. J. Edwards, who conducted a garage in Appleton, Wis., has sold it to Henry Walter, of the same town.

John Holloway and Alva Bryant have purchased the Morrison Garage in La Fayette, Ind. It is located on Columbia street.

Jones & Brandes, of Hastings, Neb., have leased a space 132 x 44 feet in the business section of Grand Island, Neb. They will erect a garage thereon.

E. M. Taylor and T. E. Loope have purchased the Frogner Auto Garage, in Iola, Wi.; they will conduct it under the firm name of Loope & Taylor.

J. McLaren, Grand Rapids, Mich., has disposed of his automobile and accessory business to S. A. Dwight, who will continue it under his own name.

Charles McFarland, of Sioux Rapids, Ia., has traded his butcher shop for an up-to-date garage. J. H. Hamilton was the garageman who made the exchange.

Sherrill & Littlefield is the style of a new firm which just has engaged in the garage and renting business in Charlotte, S. C. They will also handle accessories.

The Frederick E. Murphy Automobile Co. is the style of a new concern which just has opened up at Third street and Third avenue south, Minneapolis, Minn. Mitchell cars will be featured.

The Automobile Repair Co., of 1103-1105 Pine street, St. Louis, Mo., has leased the Mitchell garage at 4953 Delmar boulevard. It will conduct it in connection with its automobile school.

The firm of Dickerson & Spauldings, dealers in automobiles and accessories in Grinnell, Ia., has been dissolved by mutual consent. Spaulding will continue the business in his own name.

S. B. Johnston and E. J. Hewling have formed a partnership and are building a garage at the corner of Grand avenue and 17th street, Des Moines, Ia. They will show the Packard line of cars.

The Ideal Motor Car Co. is the style of a new company which has opened a garage and salesroom in Hopkinsville, Ky. Sam Frankel, Will Kimmons and C. S. Jackson are the men behind the project.

Ellinwood, Kan., soon will have its third

garage. It is being erected in this little village and will be a cement structure, 75 x 50 feet, and will be occupied by Bert Hammer and Wallace Bummert.

Robert Crandell is erecting a two story garage in his home town, Oak Park, Ill., at the corner of North Boulevard and Oak Park avenue. The building will be 100 x 50 feet, of brick, with cement floors.

Hughson & Merton, Pacific coast handlers of the Ajax tires, have opened a store in Seattle, Wash. It is located at the corner of Pike street and Tenth avenue, in the heart of the city's automobile district.

The Bradford Auto-Garage Co., recently organized with a capital of \$10,000 under the laws of Vermont, has constructed a garage on land bordering on the Waits river, Bradford, Vt. Regal cars will be featured.

James L. Elliott and Fred W. Ulrich, of South Bethlehem, Pa., have formed a partnership and opened a garage on West Fourth street, near University place. The structure is of concrete and big enough to house 85 cars.

The Mich-Heinrich Co. is a new-comer on the Minneapolis automobile row. H. J. Mich and G. W. Heinrich are the members of the firm, which will handle Warren-Detroit cars in its salesrooms at 6-8-10 Tenth street south.

Work has been started on a new garage for the Lackawanna Auto Co., of Scranton, Pa. The structure, when completed, will be three stories high, 40 x 150 feet, of brick, and will cost \$25,000. It is located at 314-316 Adams avenue.

R. M. Owen & Co., distributors of the Reo and Premier cars, have opened a branch house at the corner of Halsey and Pearl streets, Newark, N. J. It is in charge of R. E. Ingersoll, formerly manager of the Owen store in New York.

Lucien H. McIntyre, president and director of the Rutland Garage Co., of Rutland, Vt., has severed his relations with the concern, transferring his stock to G. H. Grimm, another director. A complete re-organization of the firm will take place in a short time.

The Atlanta (Ga.) branch of the Hartford Rubber Works Co. has been removed to larger quarters at 19 Houston street. The change was made necessary by the increased business which A. W. Kirk, the manager of the branch, reports is likely to prove even larger next year.

The Atlas Machine Co., of Louisville, Ky., which formerly handled the Empire car, has relinquished the agency in favor of a new concern just formed in the town under the style the Empire Automobile Co. Quarters have been secured on Third avenue, north of Walnut street.

Durham Brothers, of Pine Bluff, Ark., have filed a petition in voluntary bankruptcy. Their liabilities are about \$5,000 and

assets about \$3,060. The step was made necessary as the result of an unsuccessful outside business venture by one member of the firm, in which considerable money was lost.

I. O. Kite, of Kansas City, Mo., has purchased an interest in his brothers' firm, Kite Bros., who have been conducting a garage in Ft. Scott, Kan. At the same time the business has been transferred to the new garage at the corner of Marmaton and Fenton avenues, which is 100 x 50 feet, of concrete blocks.

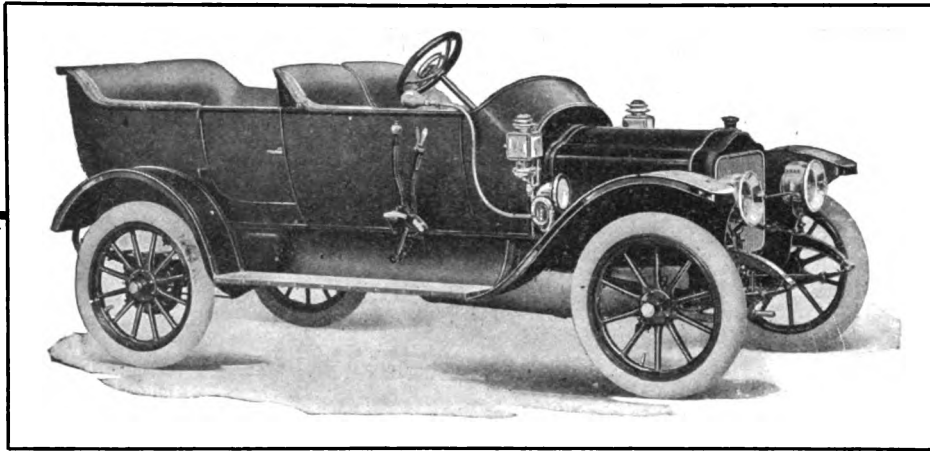
Incorporated with a capital of \$3,000, the Cairo Motor Co., of the Illinois city of the same name, has opened a garage and supply house at the corner of Sycamore street and Washington avenue, and has absorbed the Motor Car Co., of Cairo. C. L. Martin, who is one of the incorporators of the new concern, was part owner of the absorbed company.

Under the management of Edward E. Gerlinger, the Stoddard-Dayton Automobile Co. has been formed at Portland, Ore. Although Stoddard-Dayton cars will form the mainstay of the concern, other gasoline cars will be handled and a general garage business conducted. The headquarters of the concern are at 66 North Tenth street.

Joseph Greenburg and Max Rich, doing business as the Guarantee Auto Supply Co. at 65 Cortlandt street, New York, have been petitioned into bankruptcy by the Goodrich Co. and seven other creditors, whose claims aggregate \$400. Among other things, it is alleged that the firm had made preferential payments and that a city marshal had levied on their stock. Assets are estimated at \$500.

Ludwig Wolff, president of the Diebold Motor Car Co., of Canton, Ohio, on October 6th filed a deed of assignment in the name of the company, Attorney A. Talmage Snyder being named as the assignee. Later, Charles F. Weingartner, secretary of the company, filed a motion asserting the solvency of the company. The company's assets are given as not less than \$5,000, and it is now left for the court to decide whether the firm is solvent or not.

Five new garages are being built in Los Angeles, Cal., the largest of which is intended for the Maxwell-Briscoe Co.; it is located at the corner of Olive and 12th streets. The Doerr-Brown Co., which will feature Knox cars, is settling down on Olive street, near 12th, while J. D. Hooker is building a garage 53 x 120 feet at the corner of 12th and Flower streets. Still another structure is going up at 1408 South Grand avenue, where James J. Freeman and Mary S. McArthur expect to do a general renting business. Wesley Clark also established himself in that vicinity, having chosen the corner of Grand avenue and West Adams street for the location of his new garage.



## The Test of a Car

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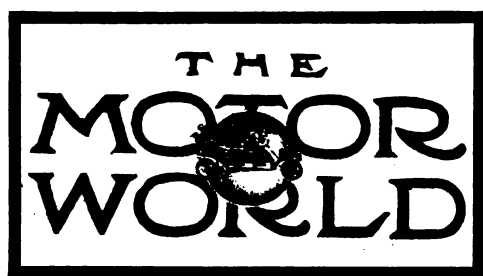
Many agencies now open for White Gasoline Cars and truck, also steam passenger cars. Demonstrators should be bought at once for early delivery.

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CLEVELAND, OHIO





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### Concerning the Transmission Problem.

Despite the wide recognition of the sliding pinion mechanism as the standard change gear arrangement there are many who still question the probability of its indefinite continuance as such. With the increasing adoption of motor vehicles for business purposes the importance of the question is considerably accentuated. A statement recently attributed to an engineer of repute is noteworthy in this connection. "In the operation of taxicabs," he is quoted as saying, "the greatest cost of repairs has been experienced with the change gears. In the hard and constant use to which taxicabs are subjected the gears are very frequently broken owing to the constant shifting of them necessary in the dense traffic through which the taxicabs must move."

With vehicles employed for pleasure only, experience, has demonstrated the superiority of the sliding gear system in certain respects, while the fact that it has

become identified with cars of the more luxurious and expensive variety doubtless has added to its prestige among the uninformed and has led to the impression that it is in all respects superior to other systems. As a matter of fact, it is not in all points more advantageous than other systems, and the objection that most frequently has been urged against its use is the one that militates most strongly against it when applied to taxicabs and other commercial vehicles. Regardless of its mechanical economy in other respects it is a great drawback to its success that a certain amount of skill is necessary in order to operate it successfully; furthermore, whenever it is not handled with the necessary amount of skill and judgment it is bound to develop an inordinately high rate of upkeep. In weighing the advantages of any system the power wagon user is bound to consider not only mechanical but also operating efficiencies. It may be better economy for him to utilize some device that is mechanically inefficient yet sufficiently simple in operation to enable him to employ low priced labor in handling it, for example, than it would be for him to employ a better class of mechanism and more expensive labor, or to use the same class of labor and then stand a higher rate of upkeep in replacing parts broken by careless handling. In other words, it might prove good economy in the long run to employ a form of change speed gear that uses more engine power than the conventional gear, but that would stand up under the severe usage of continual speed changes without requiring frequent and expensive repairs, or that was so constituted that its parts might be replaced at lower cost.

In this connection it is well to call attention to the fact that most excellent service is obtainable with light machines from the planetary type of change gear, and that in the spur form, it is not only economical to build but simple to operate and reasonably efficient when maintained in good condition. Another form of gear which is little used, relatively speaking, but which affords the ideal degree of simplicity in operation, is cheap to produce and cheap to maintain, is the friction disc drive. By many authorities it is believed that in some form of friction transmission will be found the ultimate solution of the automobile change gear problem. Still others pin their faith to the hydraulic system, by which functional simplicity is obtained at the ex-

pense of some added mechanical complication, though whether to the point of ultimate economy, remains to be demonstrated on a perfectly broad business basis. It constantly is becoming more strongly apparent that the transmission problem remains to be reduced to its ultimate solution.

While on the witness stand, President Gresser, of Queens Borough, New York City, whose administration is under investigation, sought to excuse himself and also the condition of Hoffman boulevard, by stating that that thoroughfare had been ruined by the 19,000 automobiles which he said used it en route to the scene of the Vanderbilt race. Of course, nowadays it is popular to blame everything on the automobile, but if all of Mr. Gresser's statements are as truthful as the one regarding Hoffman boulevard, George Washington's laurels are safe. The boulevard is a thoroughly disgraceful and discreditable piece of work, and if it was not a political job, as freely has been intimated, it bears all the earmarks of it. It was in abominable condition long before even an entry blank for the Vanderbilt race was printed, and if the president of Queens Borough does not know it, his sources of information are almost suspiciously lacking. In case he is found guilty, it would be a happy idea were part of his punishment be made to consist of about 24 laps over his "automobile ruined" boulevard. It is not short of a man-trap, and if the city of New York escapes payment for loss of life it may count itself lucky, with no thanks to Gresser.

In introducing a new model a British automobile manufacturer indicates with pride that during the two years a similar product has been on the market the number of such cars running on the road has reached "nearly 2,000." From which he concludes triumphantly, "Our experience, therefore, with such a vast number of users is very varied and it is from the experience of so many users that we have been able to embody in this 1911 chassis every known improvement that was required to ensure it being a perfect 'model de luxe' small car in every particular." With all due respect to the force of the argument, how much greater must be the advantage in the same respect of certain of the American "large producers" whose output in a year runs anywhere from two to five times as high on each of several different models.

**Accessory Makers Strong for Both Shows.**

Of the members of the Motor and Accessories Manufacturers, Inc., who have contracted for space in the Madison Square Garden show in New York, 146 will exhibit during the first or pleasure car week, and 114 during the second or commercial vehicle week. Of the members who will exhibit at Chicago, 121 will be in evidence during the first week and 97 during both weeks. These figures will do much to settle a lot of speculation regarding the comparative number of parts and accessory makers who would exhibit during the entire run of both shows, it being anticipated that relatively few of them would display their wares during the commercial car week. The M. A. M. will allot their space on Tuesday next, 25th inst.

**Jonz Elects and Prepares to Enlarge.**

Although the American Automobile Co. of Kansas City has acquired control of the Jonz Automobile Co., of Beatrice, Neb., whose plant it was reported would be removed to Kansas City, the Jonz company is preparing to erect a three-story addition, 46 x 140 feet, to its factory in Beatrice, a proceeding that does not suggest removal. At its annual meeting last week it also elected officers as follows: President, B. B. Bales; vice-president, C. Charles Jones; secretary, N. E. Jones; treasurer, H. K. Cole; assistant treasurer, C. R. Jones; general manager, L. A. Boli, Jr.

**Pittsburgh Dealers Elect Officers.**

At its annual meeting last week the Automobile Dealers' Association of Pittsburgh, Inc., elected the following officers for the ensuing year: President, W. N. Murray, president Standard Automobile Co.; vice-president, F. D. Saupp, president Hiland Automobile Co.; secretary, E. C. McCurdy, secretary McCurdy-May Co.; treasurer, G. P. Moore, general manager of Keystone Auto Co.

**Fined \$100 for Violating Injunction.**

Judge Ward, of the United States Circuit Court, in New York, last week imposed fines of \$100 each on Julian M. Pickney, president of the Auto Spring Repairs Co., and William R. Petz, for contempt of court in making and selling a spring repairer device in infringement of the patent issued to the Accessories Supply Co., and in violation of an injunction granted June 7, 1910. They paid the fine.

**Edsall Selected as Mora Trustee.**

At a meeting of the creditors of the bankrupt Mora Motor Car Co., Newark, N. Y., last week, Julius M. Edsall, of Buffalo, was selected as trustee in bankruptcy. His bond was fixed at \$50,000.

**Stuyvesant Excites an Illinois Town.**

The Stuyvesant Motor Car Co., of Cleveland, Ohio, which has a six cylinder car in

hand, has the little city of Rockford, Ill., "all worked up." F. E. Stiverson, president of the company, was in Rockford last week and after looking over several factory sites told the leading citizens that if encouraged to the extent of about \$75,000, a Stuyvesant factory, employing from 300 to 500 men, would locate "in their midst." Rockford now is engaged in trying to raise the cash.

**Enlargement of the Empire Plant.**

The Empire Tire Co. has completed several additions to its plant in Trenton, N. J., which were made necessary by its increased business. Among them is a three-story stock and shipping room, 40 x 80 feet; a third story, 40 x 70, on the main mill building; a second story, 40 x 100, on the office building, and also a six-car garage for the accommodation of the automobiles used by the headquarters staff.

**Iowa Dealer Killed on Race Track.**

J. Leon Meredith, President of the Meredith Automobile Co., of Mason City, Iowa, was killed during the racemeet at Des Moines last week. He was driving a Hudson car in one of the events and collided with a Reo driven by John Wallace, who was badly hurt but who will recover.

**Elkhart Seeking an Oklahoma Site?**

According to Oklahoma press reports, representatives of the Elkhart Motor Car Co., Elkhart, Ind., makers of the Sterling car, are in that part of the country seeking a site for a branch factory. They are said to be wavering between Oklahoma City and Muskogee.

**Overland's Chief Engineer Goes Abroad.**

Among the passengers on the Lusitania which sailed for Europe yesterday was W. H. Cameron, chief engineer of the Willys-Overland Co., who goes to visit the London show and also several continental factories. He will be absent a month or more.

**Michelin Erects Its Fourteenth Building.**

Still another building has been added to the Michelin Tire Co.'s already extensive plant at Milltown, N. J. The new structure—the fourteenth—which just has been completed is 54 x 212 feet and will be devoted wholly to the production of inner tubes.

**Havens Hopes to Produce "Sixes" for \$1250.**

The Havens Motor Car Co., which recently secured backing in Port Huron, Mich., hopes to begin operations there within 30 days. It plans to produce a six cylinder car listing at \$1,250.

**Huge Addition for Stoddard-Dayton.**

The Dayton Motor Car Co., Dayton, Ohio, has let contracts for a huge addition to the Stoddard-Dayton plant in that city. It will be a brick building 1,000 feet long by 80 feet wide.

**COMING EVENTS**

October 17-26, Atlanta, Ga.—Georgia Around State Tour.

October 21-22, Boston, Mass.—Boston "American" commercial vehicle contest.

October 21-25, Washington, D. C.—Second annual Washington "Post" tour to Richmond, Va., and return.

October 24, Lawrence, Mass.—Automobile races.

October 27-29, Dallas, Tex.—Dallas Automobile Club's race meet.

October 28-29, New York City—Commerce vehicle test, under auspices New York American.

October 29-30, Jersey City, N. J.—Reliability run of Automobile Club of Hudson County.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on Speedway.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 7-11, Chicago, Ill.—Reliability contest under auspices Chicago Motor Club.

November 10-13, San Antonio, Tex.—San Antonio Automobile Club's races at International Fair grounds.

November 12, Savannah, Ga.—International road race for the Grand Prize of the Automobile Club of America.

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Savannah, Ga.—Savannah Automobile Club's road race.

November 26-27, Los Angeles, Cal.—Motordrome races.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Races at Motordrome.

January 5-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

**EXCHANGE VIEWS ON ELECTRICS**

**Electric Vehicle Association of America  
Holds Its First Convention—Discusses  
Low Priced Product.**

Evidence of a demand, or fancied demand, for a light electric vehicle suitable for delivery and general utility purposes developed in connection with the first annual convention of the newly formed Electric Vehicle Association of America, held in New York City on Tuesday last, 18th inst., in connection with the electrical show in Madison Square Garden. It was asserted by representatives of the central station men that such a demand exists and that the demonstration and sale of electrics of larger capacities would be considerably expedited were machines of this class available.

Expressions of this view failed to elicit very cordial response from the automobile makers present, the latter explaining that they at least, had been unable to discover any very substantial leaning in this direction on the part of the buyer and also citing several reasons that would make it difficult to exploit such a machine successfully. A car to carry loads below 1,000 pounds, and selling for somewhere about \$750, was the type defined.

The object of the convention, like that of the association, was to promote the adoption and use of electric vehicles for business and pleasure purposes, and with that intent a full and comprehensively instructive program had been arranged. While the attendance of "outsiders" was not large, a majority of the 250 persons at the meeting being either electric vehicle men or those affiliated with other branches of the electrical industry, the result cannot fail to result beneficially to the interests involved quite as much through the interchange of ideas which took place as from the impulse toward well-directed publicity which the movement received.

The convention was directly in line with a well-shaped project for assembling the electric vehicle manufacturers and central station men, who deal in the electric current which is essential to the operation of the machines, and electric vehicle users, upon a common footing insofar as their mutual interests are concerned. Its immediate result was to show that there is opportunity for considerable adjustment of views before an absolute community of spirit is possible, though in unanimity of agreement as to the present strength and probable future development of the market for electrics unbounded enthusiasm was shown.

This spirit reached a climax when, in concluding an illustrated lecture in which nearly 100 views of electric cars were

shown, most of them commercial vehicles photographed under operating conditions, Day Baker, New England representative for the General Vehicle Co., caused to be thrown on the screen this sentiment, written in the cramped hand of the "Wizard," himself, and over his own signature:

"In 15 years more electric current will be sold for electric vehicles than for light.

"Thomas A. Edison."

President Wm. H. Blood, Jr., of Stone and Webster, Boston, Mass., presided over the meeting, and gave a particularly effective exposition of the purpose of the association in his opening address, in which he referred confidently to the broad expansion in use which the electric is destined to experience. The other speakers on the program and their subjects were as follows:

"Problems Involved in Advancing the Use of Electric Automobiles," W. P. Kennedy, New York; "Recent Electric Automobile Performances with the Edison Battery" (illustrated by stereopticon), Frank L. Dyer, Orange, N. J.; "The Responsibility of the Central Station to the Electric Vehicle Industry," Louis A. Ferguson, Chicago; "Various Applications of the Electric Vehicle" (illustrated by stereopticon), Day Baker, Boston; "The Electric Vehicle in Heavy Trucking Service," J. T. Hutchings, Rochester, N. Y.; "The Electric Vehicle Battery," Bruce Ford, Philadelphia; "The Proper and Practical Care of Electric Vehicle Batteries," S. C. Harris, New York; "A Central Station Campaign for Electric Vehicles," F. M. Tait, Dayton, O.; "Motor Vehicle Road Tests," (a) Philadelphia to Atlantic City, G. M. Graham, Philadelphia; (b) Proposed run under auspices New York American, Duncan Curry, New York; "A Large Modern Electric Garage," Charles L. Eidlitz, New York.

It was during the afternoon session, when the meeting was thrown open for the discussion of papers, that it first became apparent that the newly fledged association has considerable work cut out for it in the way of settling certain questions of supply, demand and administration. For, oddly enough, though the subjects of the set papers were alluded to in flattering terms, the gist of the discussion for the most part hinged about points that the speakers of the day had not touched upon or merely had mentioned in passing.

Before the discussion had progressed very far it developed that whereas the manufacturers are anxious to assist the central station men by suggesting how properly to sell and maintain electrics, the central station forces are equally willing to be helpful to the manufacturers in the way of suggesting things for them to do. At no time did the interchange of views reach the heat of debate, but just sufficient warmth was developed to bring out forcible and richly suggestive expressions of opinion. It was in this way that the mat-

ter of the light commercial electric came in for discussion.

It was R. M. Searle, of the Rochester Railway & Light Co., who introduced the subject, in connection with a bright and forcible series of suggestions, all of which revealed thorough familiarity with the electric vehicle in the field. In connection with the work of central stations, he explained in substance, it is desirable to use machines of less than 1,000 pounds capacity. Such a vehicle also could be used to advantage, he thought, in making demonstrations to prospective purchasers, even where an installation of heavier machines might be in contemplation; the light cars, as being handier, less expensive to operate and involving a smaller investment in demonstrating machinery, should prove useful in this field.

Later, after the manufacturers' side of the question had been presented from various angles, the same speaker arose to renew his plea for the little electric; citing various lines of business in which it would find a ready market, according to his views, such as that of florists, cigar merchants, and retailers in other light wares who, to strengthen and advertise their trade require light, cheap and quick delivery means. He further asserted that so strongly had the demand been felt in his own locality that his company had been forced to buy chassis and construct body equipments to suit their customers' needs.

The cause of the light electric also was championed by several other speakers, among them Arthur Williams, of the New York Edison Co., vice-president of the society, who besides quoting Mr. Edison as predicting a heavy demand for such machines in the future, fixed the price at \$750. Mr. Osgood, of Newark, speaking in the interests of the local public service corporation, revealed a new point of view when he referred to the facility with which users desiring light delivery vehicles can buy second-hand gasoline cars and convert them to commercial purposes. In fact, he indicated the hypothetical light electric as being in close competition with the remodeled gasoline pleasure car, the latter having a considerable advantage in point of economy, from the standpoint of the uneducated operator, because of its very low first cost. That the number of old gasoline cars available for conversion is very great and is destined to increase at an enormous rate, he also emphasized.

Speaking from the point of view of the car builder, who presumably has studied the market very closely and weighed its demands with exceeding care, Hayden Eames, of Cleveland, stated it as his opinion that instead of calling for vehicles of smaller capacity, the real tendency of the market is to call for machines of increased capacity. As the user becomes familiar with operating conditions and learns to handle his equipment economically, his ef-

fort is to concentrate as far as possible and to increase his loading unit.

In the opinion of W. P. Kennedy, installation expert for the Studebaker Automobile Co., most of the electric vehicle manufacturers already have too many different styles of chassis in the works. It is their desire to concentrate as far as possible, and the addition of new models, particularly light ones, when the indicated demand appears to be greater for the medium and heavier styles of car, would be both expensive and hazardous. Success with a light model could be obtained only upon the basis of immense outputs—a point that several other speakers brought out.

In the experience of the General Vehicle Co., as expressed by Mr. Boyd, no quantity market is visible for the small electric. He and others, among them Mr. Lund, of Chicago, also were doubtful of the practicability of such a vehicle from the engineering standpoint. The latter, in particular, was of the opinion that its operating cost would be likely to prove too high, relatively speaking, to warrant its introduction.

The mention of durability brought up the tire question, and incidentally elicited from one or two of the central station men inquiries as to the relative costs of solid and pneumatic tires. An effective answer was furnished by Louis A. Ferguson, of the Chicago Edison Co., who told of his experiences with tires on his 4,000 pound touring car, which, he thought, was a little heavier than the type of electric truck then under discussion.

Rapid mental calculation showed that in a given period his tire costs had averaged seven cents a mile. Edison service in Chicago had developed an average cost of 1.45 cents per mile for solid tires over a wide range of practice. Mr. Kennedy told of an average tire cost of less than one cent a mile with solids, in Studebaker experience.

Careful compilation of figures from a wide range of installations have shown, according to the same authority, that the cost of operation increases with the square of the speed. Thus, wherever practicable, it is now sought to reduce running schedules. The result is an immediate and striking saving in running expense.

Apropos of tire expense, Mr. Baker, of the General Vehicle Co., related an illuminating experience with one of his customers who had complained of high maintenance figures. Within an astonishingly short period seven tires had been discarded from the customer's installation. Investigation showed that the tires had not been traded in or sold, and further that they had never been to the repair shop. Upon examination it developed that several of the discarded tires were cut in one or two places, one or two had torn away from the base, and others were more or less used up; not one of the lot, however, was so far gone that it could not be repaired. In each case, as Mr. Baker was very careful to explain, not

the manufacturer himself—who is one of the largest and best known producers in the business—but one of his salesmen, after inspecting the damaged tread, had declared the tire ruined and promptly had sold a new one in its place.

The result was that the tire manufacturer was taken down into the customer's basement to view the exhibit; that he declared the tires worthy of preservation; and that he further agreed to see to it that the customer was better taken care of in the future. Later, however, as the speaker declared, the tire manufacturer turned to him laughingly and said:

"Be very careful, Baker; you are treading on dangerous ground there.

"We could go on filling up the holes in that man's tires and they would keep running forever. But you must remember we are not in the repair business. What we want is to sell new tires!"

Later Baker succeeded in arranging with two prominent tire concerns to handle the commercial vehicle end of their business on a maintenance contract basis instead of selling tires outright. The result, naturally, was much to the benefit of the user.

Someone was unfortunate enough to remark that it had been said the electric vehicle manufacturers were loth to place their products in one-car installations, preferring to work under the more advantageous conditions of larger equipment. This was indignantly denied by several contributors to the discussion; Mr. Kennedy declaring that in one case within his experience a customer by an initial investment of \$1,800, had displaced his horse equipment and effected a saving in his delivery costs of no less than \$1,000 a year.

Rather an original suggestion was that of Mr. Searle in regard to what he termed a "confession of weakness" on the part of the manufacturers when they admitted the utility of the electric was confined to use within city limits. Inability to climb bad hills was one popular objection that served to cut down the useful radius of electrics on this account. Instead of shortening the travel of the cars, his idea would be to string a trolley wire up any bad hills along well traveled lines, providing each vehicle with a "substitute" trolley pole, that could be put into action to furnish extra current to pull it up the hill, thereby relieving the battery from the extra drain and possibly affording it a "boost" as well.

After some discussion the New Jersey Public Service representative remarked that the trolley wire already was strung in the vicinity of Fort Lee hill, near New York, which was the particular example chosen by the previous speaker, and that suitable rails already were laid. If the electric vehicle users only would bring along a few electric trucks, he intimated with some asperity, beyond a doubt the Public Service would provide flat cars to carry them up the hill.

At the close of the morning session, the convention was entertained at a luncheon provided in the restaurant of the Garden by the New York Edison Co. The courtesy of the same company was evidenced later, when on leaving the hall at the close of the convention all those present were provided with complimentary tickets to the electrical show.

#### **"Export Expedition" to Girdle the Globe.**

Three globe girdlers are due to leave Detroit on or about November 1st, but unlike others their globe girdling will be more of a business undertaking than a sporting event. Their purpose is not merely to introduce and demonstrate and exploit the Hupmobile, but to open up the foreign markets for it. The trio are Joseph R. Drake and Thomas S. Hanlon, of the Hupp Motor Car Co., and Will B. Wreford, a former newspaper man. They will use the new 20 horsepower Hupmobile touring car, and will "travel light," with little baggage and few parts, the intention of the "export expedition" being to drive the car wherever possible. After reaching San Francisco the party will in turn visit Hawaii, Australia, China, India, South Africa and Continental Europe.

#### **Van Dyke Sets Up a Maintenance Plant.**

The Van Dyke Motor Car Co. of Detroit has established a garage and maintenance plant in Chicago at 2436 Cottage Grove avenue. It has a capacity for 200 Van Dyke wagons and trucks to which it will be wholly devoted, the maintenance system in vogue entailing not merely the usual washing but nightly inspection and adjustment. W. A. Rider is in charge of the establishment.

#### **Marble Proves that He is Innocent.**

George Marble, who was arrested in Kenosha, Wis., in connection with the stealing of parts from the Rambler factory, as told in last week's Motor World, has been vindicated. District Attorney R. V. Baker asked for the discharge of Marble and declared that closer investigation showed him to be innocent.

#### **April Dates Chosen for Montreal Show.**

April 1st to 8th have been selected as the dates for the Montreal (Can.) show, which will be held in the local Coliseum as heretofore. It will be managed by E. M. Wilcox, of Toronto, who also is in charge of the show that will be held in the latter city in February.

#### **The Speedometer that Dawson Used.**

Couch & Seeley, makers of the Cosgrain speedometer, have risen to object to the statement that the first four men in the Vanderbilt cup race used Warner autometers. They say that Joe Dawson, who finished second, employed a Cosgrain.

**OLDFIELD ENACTS A "BARNEY"**

**"Slips Out of Grandstand" at Readville and Performs Stunt on Track—Guileless Promoter "Signals" Vainly.**

Although the Bay State Automobile Association withdrew its support at the eleventh hour from the hastily arranged race meet at Leadville, Mass., that affair went through Friday afternoon, 14th inst., after a fashion. W. W. Fullerton, who has figured as a promoter at other points, was really the mainspring of the venture. When he found that the state association, disgusted over the tactics of Barney Oldfield and his prize ring affiliations, had decided not to use the sanction it had secured, Wellman got one on his own account.

In view of the fact that a good deal of money had been spent in advertising the meet, and hardship would be caused several of the contestants who were on the ground, the contest board of the American Automobile Association granted Wellman permission to hold the races, but only upon the express stipulation that Oldfield should not participate in any way. Barney, by the way, had been heavily advertised along with his big car. In spite of the agreement, without which no sanction could have been secured by Wellman, Oldfield "slipped out of the grandstand" after 5 p. m. and made two circuits of the track, paying no attention to the "signals" bidding him to leave the track. On the face of things, it would seem as if Oldfield violated the conditions of the sanction purely on his own responsibility, but the opinion obtains in many quarters that Wellman understood Oldfield's little game in advance and aided in carrying it out. Should it be proved that Wellman was a party to the collusion, instead of escaping with a small fine, which he could well afford to pay under the circumstances, the ostensible promoter is likely to be barred a long time, if not permanently, by the three A.'s. Encouraged, apparently, by the negative opposition of the A. A. A., Oldfield, since his stunt against a negro pugilist first was announced, bringing about his suspension, has gone about openly defying the national body, which, according to one of its officials, can be depended upon to bring up him and his staff with a swift jerk.

The Readville races were announced as being under the management of the Massachusetts Motor Racing Association, a name that seems to have been coined for the occasion. Oldfield made the circuit of the mile track in just 50 seconds, according to the stop watches of four reporters.

The principal event of the meet was the hour race, which went to Ben Kerscher, driving Oldfield's Knox stock car, who completed 51¾ miles. Kerscher took the

lead almost at the start and was not headed until the thirty-seventh mile, when a rear tire gave out. This gave J. L. Judd (Jackson) the lead, but the latter soon had tire trouble of its own and Kerscher regained first place and he never lost it again. Edward Beverly (Simplex) was second, a quarter of a mile behind, and A. W. Rogers (Simplex) was third with 47¼ miles; Judd (Jackson), fourth, with 39 miles, and G. W. Wells (Moon), fifth, with 33¼ miles. The first event was a five miles match race between Nelson Slater (Lancia), a Worcester amateur, and John Schuyler (Firestone-Columbus). Slater got a fine start, which easily landed him winner in 5:54.

Second on the bill was another five miles match race between S. P. White in a Cameron and G. H. Wells in a Moon. White won in 5:39, having a lead of three seconds. Two other amateur races had to be given up because of darkness. The summary:

One hour race—First, Ben Kerscher, Knox, 51¾ miles; second, Edward Beverly, Simplex, 51½ miles; third, A. W. Rogers, Simplex, 47¼ miles; fourth, J. L. Judd, Jackson, 39 miles; fifth, G. W. Wells, Moon, 33¼ miles.

Five miles, match race—Won by S. P. White, Cameron; second, G. W. Wells, Moon. Time, 5:39.

Five miles, match race—Won by Nelson Slater, Lancia; second, John Schuyler, Firestone-Columbus. Time, 5:54.

Mile time trial—Barney Oldfield, Blitzen Benz, 50 seconds (unofficial).

**Contest Board Denies Gorham's Protest.**

Although it did not appear in the stories of the affair, it seems that Sidney S. Gorham, one-time secretary of the American Automobile Association, attempted to enter six Premier cars in the recent interclub reliability run of the Chicago Automobile Club and the Chicago Athletic Association. The entries, however, were refused by the joint technical committee, because of the disqualification of the Premier cars in the Glidden tour. Mr. Gorham, who by the way, is legal counsel for the Premier company, promptly filed a protest, but the contest board of the three A.'s at its meeting last Wednesday, sustained the position taken by the committee.

**Splitdorf Offers Trophy for Hour Race.**

C. F. Splitdorf, who makes magnetos, and good ones, has presented the trophy for the one hour race which will constitute the chief feature of the Mount Vernon (N. Y.) Automobile Club's racemeet on the Empire City track, Saturday next, 22d inst. The prize, which is of special design, will be styled the "Splitdorf Magneto Trophy," and must be won three times to entitle the holder to permanent possession. A cash prize also goes with the trophy on each occasion. Saturday's program will be made up of seven events.

**OLDFIELD NOW IS AN "OUTLAW"**

**A. A. A. Casts Him Out, Bag, Baggage and Managers—He Prepares to Become a Real "Sporting Man."**

Barney Oldfield, his Benz and his baggage, and his whole kit and crew, have been outlawed and no longer can race or appear in any capacity whatsoever in any contest sanctioned by the American Automobile Association, or any of the organizations with which it is allied, which means that they no longer can be recognized or harbored by any club, promoter or track owner who desires to deal with automobiling or any other recognized sport.

The A. A. A. already had set down Oldfield, and his manager, "Bill" Pickens, for the part they played in arranging and heralding a "moving picture race" with Jack Johnson, the negro prize fighter, and as Oldfield, despite his suspension, "committed a flagrant violation of the rules at a sanctioned meeting at Readville, Mass., on October 15th, by intruding himself upon the track in his Benz racing car and without official start or timing, made several circuits of the track, in defiance of the warnings of official"—to quote the official language of the A. A. A. contest board—his disqualification was made indefinite at a meeting of that body held in New York yesterday. The 200 horsepower Benz car which he used also was similarly disqualified, as also was W. H. Pickens and J. Alex. Sloane, his managers, the latter of whom is declared to have participated in the offense at Readville.

Having cast his lot with negro pugilists, moving picture men, bookmakers and other sporting men, Oldfield, the "outlaw," is to become a "real sport" and has visions of prying the public purse wide open. "Lou" Housman, a Chicago "sporting man"—a term that covers many unusual occupations—is declared to be ready to take Oldfield to his bosom and make him the star, or one of the stars, of an aggregation of "sports" with which he will tour the country doing an alleged vaudeville stunt in an effort to induce the great green public to "loosen up." Oldfield, however, first wants to win his moving picture "race" with the negro prize fighter which was scheduled for today, but apparently his victory already is assured, as Housman, the Chicago "sport," is reported to have made offers to other "stars" of his kind which have been accepted. One of the officials of today's moving picture "race" was to be "Tim" Sullivan, the Bowery politician, who is something of a "sporting man" himself and with a reputation of knowing how to make people "loosen up." A blinding rainstorm starting early to-day prevented the race from being run as per schedule.



**"THROWN" TIRE CAUSES A TRAGEDY**

**Fatal Accident in Feature Event Cuts Short Texas Racemeet—Adair Takes Lion's Share of Trophies.**

What was admitted to have been the only "real event" in the three days racing at the fair grounds, Amarillo, Texas, was brought to an untimely end by an accident that caused the instant death of T. H. Skaggs, a driver, Wednesday, 12th inst. Skaggs, piloting a Simplex car owned by W. H. Bertrand, was going almost at the rate of 70 miles an hour when the machine threw a tire, gave a lurch, turned over and crushed the driver's skull. F. P. Pringle, Skaggs' mechanic, of Dallas, was also badly hurt. The same entry threw two other tires earlier in the race, but without serious results. When the car finally righted itself and came to a standstill every wheel had been broken and the steering post torn away. Skaggs' home was in Alabama. The remaining motor speed contests were called off. However, an hour later Thomas Benoist, a St. Louis aviator, was struck with such force by a propeller while adjusting his biplane, that his condition is critical.

Of the earlier race events Adair, National, won the 20 miles contest, with Day, E-M-F, second, and Reeves, E-M-F, third. Reeves, E-M-F, captured the ten miles race, Day, E-M-F, being second, and Myers, Rambler, third. Adair, National, also annexed the ten miles handicap, with Reeves, E-M-F, second. The summary:

Twenty miles—Won by Adair, National; second, Day, E-M-F; third, Myers, Rambler. Time, 19:22.

Ten miles—Won by Reeves, E-M-F; second, Day, E-M-F; third, Myers, Rambler. Time, 13:22.

Ten miles handicap—Won by Adair, National; second, Reeves, E-M-F. Time, 11:35.

**Runaway Races on Denver Speedway.**

What is characterized with delightful indefiniteness as a "new Western mark," was established last Saturday by Milburn McDonald in the ten miles race against a motorcycle at the Denver Motor Speedway. At that, however, McDonald, who is a youthful local light, did not even come anywhere near the world's record. His time was 8:48. He also distinguished himself by capturing the 50 miles match race. In the ten miles contest he drove practically with one arm, the other having early been rendered helpless when his elbow struck against an iron bar in one of the car plunges. The program was under the joint management of the Denver Motor Club and the Denver Motor Speedway Association, about 3,000 persons being in attend-

ance. McDonald, who is better known as "Red," drove a high powered Thomas car in the ten miles contest, but in the 50 miles race he handled a Reo, his time being 57:43. He made a runaway affair of it, leading J. H. McDuffee in a Chalmers by fully ten miles. In the ten miles race for cars selling at \$1,000 or less, Alkire, in the Ford, won by ten seconds from Swanborough in the Hupmobile, the former's time being 13:35. In the 30 miles handicap race based on piston displacement, Alkire in the Ford (allowance 1:10) won in the time of 38:53. McDuffee, Chalmers (scratch), was second in 40:45.

**Referee's Queer Ruling is Reversed.**

The contest board of the American Automobile Association at its meeting last Wednesday sustained the appeal of the Foster Motor Car Co., of Richmond, Va., against the wiping out of the 20 points penalization against the Speedwell car in the July endurance run conducted by the Richmond Times-Dispatch. The trophy, therefore, goes to the Buick No. 9, entered by the Foster company. The referee originally appointed was unable to go on the tour and the substitute who took his place had his collarbone broken early in the trip. A second substitute, S. T. Atkinson, was therefore appointed, and he continued to ride in the contesting Speedwell car as he had been doing before his appointment. In canceling a penalty which the technical committee assessed against the car, referee No. 3 returned a "sealed verdict" and refused to explain why the penalty could not stand. In seeking the restoration of the penalty the Foster company claimed that favoritism had been shown.

**Louisville Finally Makes Its Awards.**

After some two weeks delay caused by doubts or protests, the Louisville Automobile Club on Thursday last finally made the awards for its recent reliability and economy test. The Maxwell car, entered by the Marshall-Clark Motor Car Co., was given the prize for reliability, and the Cole, entered by the Southern Motor Sales Co., got the award for economy. But eight cars started in the contest, and but three finished, the smallness of the field leaving a bad taste in the mouth of the Kentucky organization which is inclined to charge that it was "thrown down" by the local trade after having been given assurances of ample support.

**Special Radiator Causes Disqualification.**

C. L. Taylor, Reo agent, who appealed from the award of the Kansas City Star Cup to O. W. Hiatt, driver and entrant of the Buick 17, on the ground that the latter was equipped with special radiator, has had his exceptions sustained by the contest board of the American Automobile Association. The prize therefore will go to the Reo.

**FAST AND SLOW SPORT AT SPOKANE**

**Wolverton and Alderson Account for the Speed Contests—Falk Takes Slow Stunt on High Gear.**

Vance Wolverton and H. C. Alderson, driving Chalmers cars, were the stars in the automobile races that brought to a close, last week, the Interstate Fair at Spokane, Wash. Wolverton captured the five miles stock car event for cars of 4 to 4½ inch bore, while Alderson took the five miles affair for cars of 3½ to 3¾ inch bore, also the two miles drop-and-pick-up-passenger race. Will Falk, in a Hudson, won the slow race. Alderson made the best time by covering five miles from a standing start in 6:38. The summary:

Five miles for stock cars, 3½ to 3¾ inch bore—First heat, Will Falk, Hudson, first; H. Hahn, Ford, second; time, 7:26. Second heat, H. C. Alderson, Chalmers, first; Stoner, Stoddard-Dayton, second; time, 6:38. Won by Alderson.

One-eighth mile slow race for high gear—Won by Will Falk, Hudson; second, Harry Bell, Pullman. Time, 40 seconds.

Two mile drop-and-pick-up-passenger race—First heat, Stenstrom, Chalmers, first; Harry Bell, Pullman, second; time, 3:50. Second heat, H. C. Alderson, Chalmers, first; H. Hahn, Ford, second; time, 3:41. Won by Alderson. Hahn made the best time but was disqualified.

Five miles for stock cars, 4 to 4½ inch bore—First heat, Vance Wolverton, Chalmers, first; D. Hahn, Oakland, second; time, 6:45. Second heat, Harry Bohr, Stoddard-Dayton, first; Bert La Rue, Pullman, second; time, 7:07. Won by Wolverton.

**Steering Knuckle Explanation Fails.**

The appeal by H. E. Frederickson, of Omaha to the contest board of the American Automobile Association on the penalization of one of his Chalmers cars in the recent Omaha endurance run has not been sustained. The protest arose over a loose steering knuckle. Frederickson contended that it was his habit in getting cars from the factory to receive them with the knuckle turned a bit. He did not explain how the knuckle on his other Chalmers happened to be tight. The decision of the committee was therefore sustained.

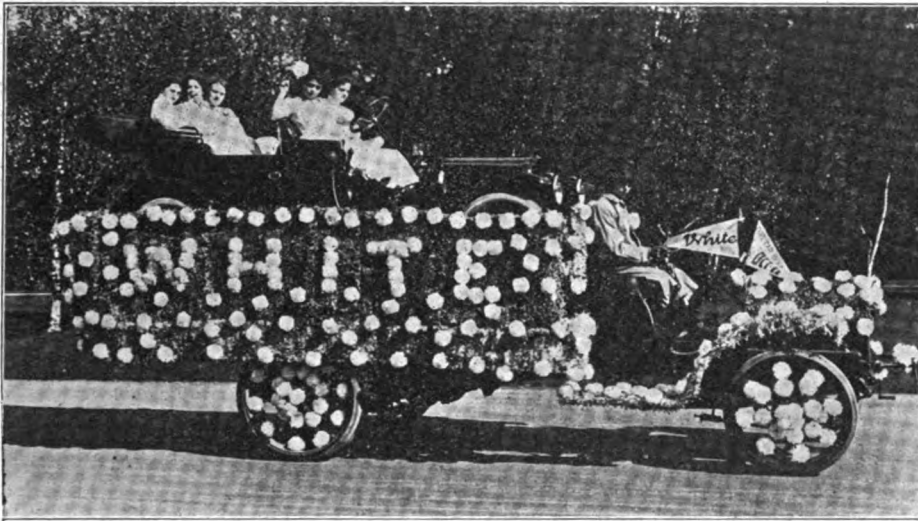
**Bragg Decides to Join the "Pros."**

Caleb S. Bragg, the Yale University amateur who has made his mark as an automobile driver, will join the cash-chasers. At his own request, the A. A. A. contest board has transferred him to the professional class. Chairman Butler declares that despite the popular notion that Bragg was a "shamateur," the contest board found him always above board.

**TRUCK HANDSOMER THAN CARS**

**Takes the Sweepstakes Prize in Cleveland's Centennial Parade—Pageant Was Five Miles in Extent.**

For once a gasoline truck was considered prettier than a whole row of spick and span, polished and "spruced up" pleasure cars—and that by a board of judges that ought to know a good looking car when it sees



WHITE TRUCK THAT WON SWEEPSTAKES IN CLEVELAND PARADE

one. It was in Cleveland that this happened—in a parade in that Ohio city when three White gasoline trucks carried off prizes for beauty, for uniqueness of decoration and, best of all, the sweepstake prize.

The occasion for this distribution of prizes was the Centennial celebration held at Cleveland on Tuesday, October 11th inst., during which the Cleveland Automobile Club pulled off one of the best parades seen this season. Despite the short time given to preparations, a line of cars five miles long passed along the 18 miles route from Wade Park to Rock river. Carefully judging each car as it went by, the judges awarded the sweepstake prize to the White gasoline truck shown in the picture. It consisted of a huge float, covered with flowers, from which rose a standard White gasoline touring car, filled with a bevy of girls and handsomely decorated with flowers.

Another prize for beauty of decorations and general handsome appearance fell to the lot of White trucks when the Euclid Park bus was adjudged worthy of it. And that mere beauty should not carry away all the honors, and utility have its share, too, a third prize for uniqueness of decoration and cleverness of arrangement was awarded to the Diamond Rubber Co. for its interesting exhibit on a White truck, on which the various steps made in the manufacture of automobile tires were demonstrated.

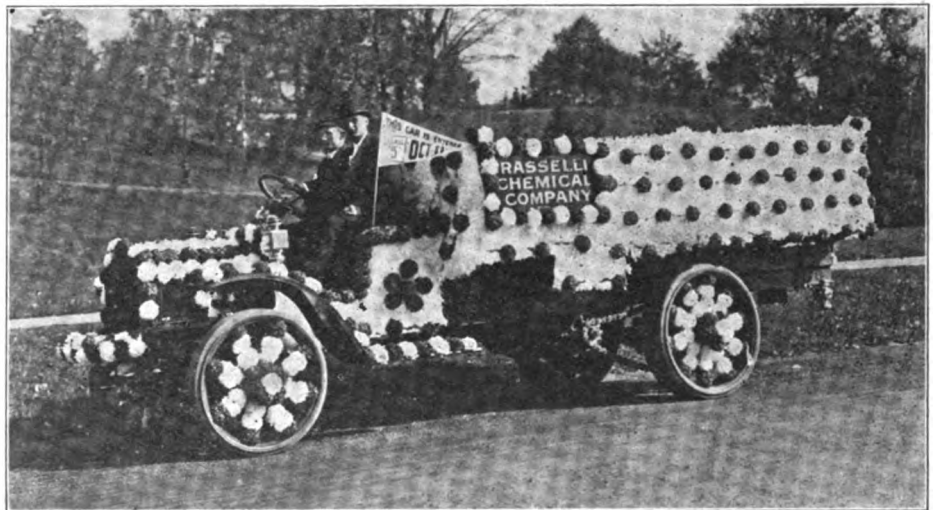
Cleveland being a center of considerable

automobile manufacture it goes without saying that the other cars made in that city were also conspicuous in the parade.

**"Interchangeability" that Led to Arrest.**

Interchangeability of parts is being widely advertised as a "good thing," but two Oklahoma motorists at present are without their cars, Levi M. Bowman is under arrest and the courts are trying to bring light into the muddle—all because said Bowman, who conducts an automobile repair shop and

garage in Lawton, Okla., is said to have done a little juggling with the parts belonging to the two cars. The unusual sit-



ANOTHER PRIZE-WINNING WHITE TRUCK IN CLEVELAND PAGEANT

uation arose from the fact that Dr. A. R. Hughes sent his car to Bowman's garage for repairs. At the same time there stood in the garage another car of the same make and model, and Bowman is alleged to have taken parts from the doctor's car and put them into the other one. He was arrested on a warrant charging him with grand larceny and Dr. Hughes had the other car placed into custody for the time being pending a decision of the courts.

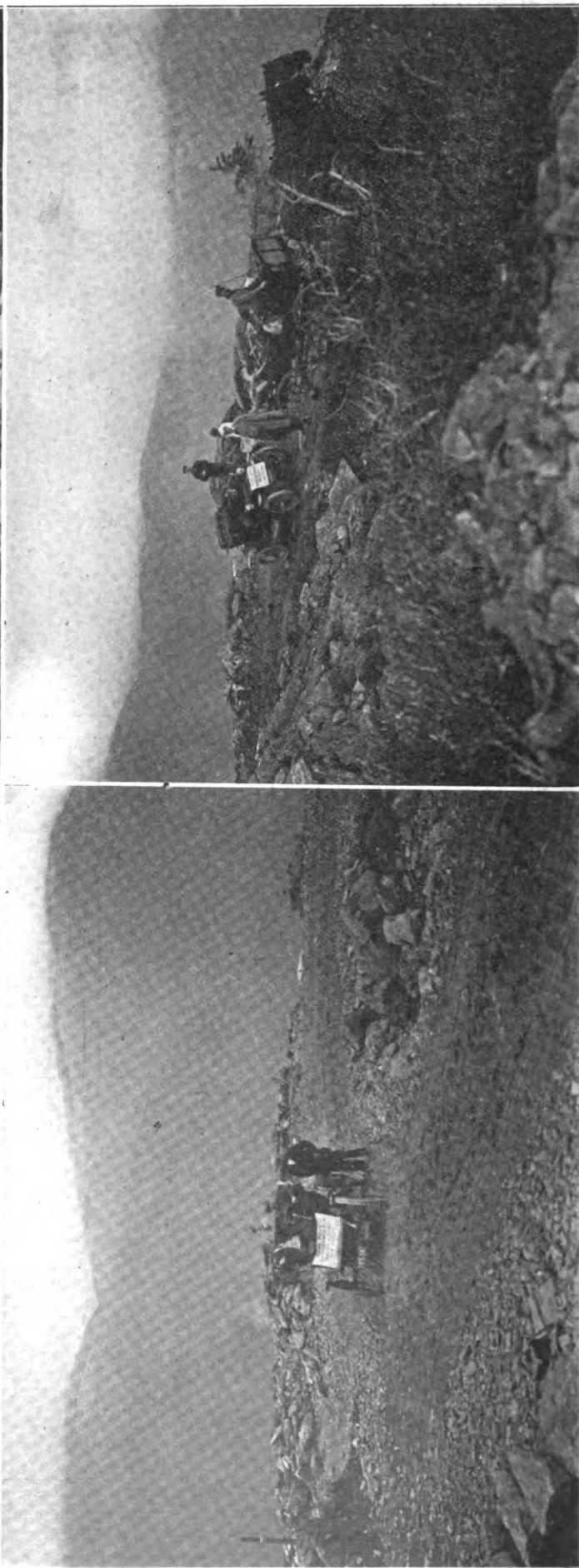
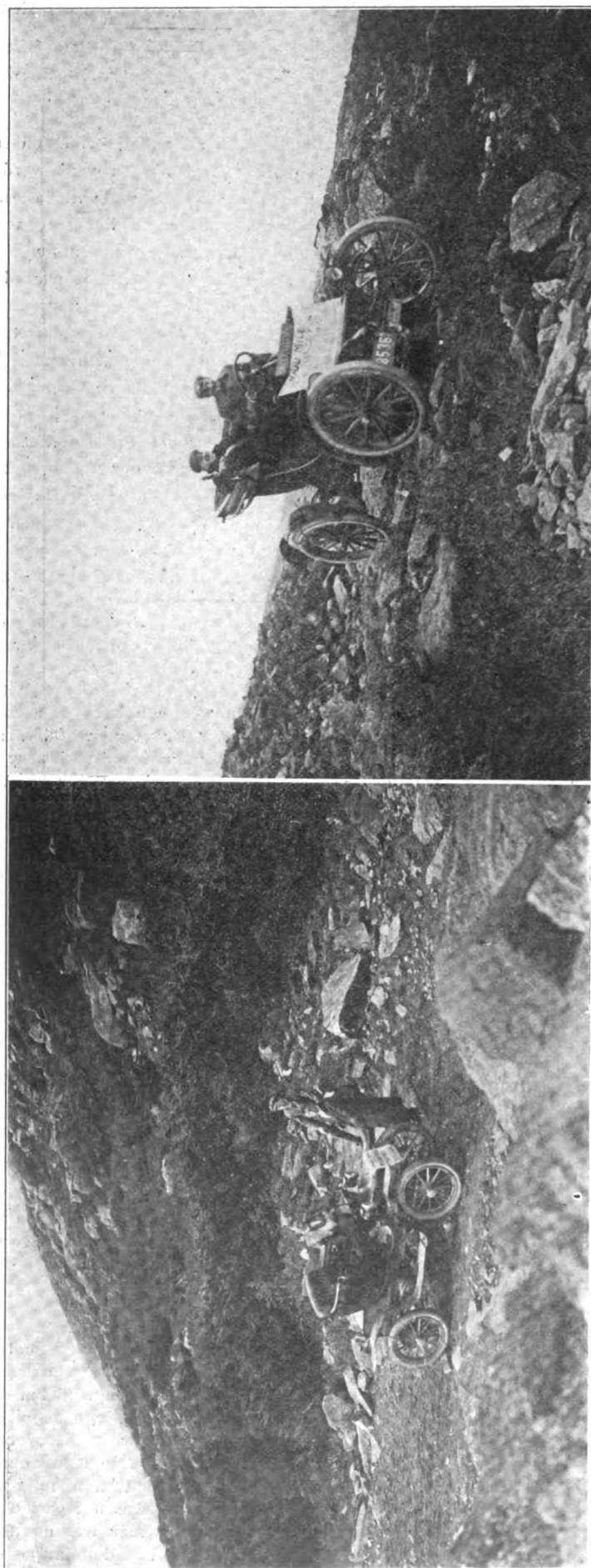
**NEW VERDICT FROM SCOTLAND**

**Violation of Speed Law Not an Offense Unless "Wickedly Committed"—Sheriff Himself so Rules.**

Scotland, the land which originated the famous "Guilty but not proven" verdict, has come the front again with another judicial decision which is likely to make the world of motorists "take notice." A Scotch sheriff has decided that exceeding the speed limit is a "very questionable offense," and unless "wickedly committed" one that does not deserve punishment. The opinion was rendered in the case of a Scotch artillery officer who was haled before the sheriff's court for violating the speed ordinances, and who explained that to the best of his belief he traveled only at the legally permitted speed of ten miles an hour. As the police evidence showed him to have gone a measured quarter mile in 54 seconds, he would have been fined in any country that had automobile laws forbidding such "speed." But the Scotch sheriff dismissed the case, pointing out that the law of Scotland required that a man should not be convicted of a crime unless he acted "wickedly, wilfully, and feloniously." He sympathized with accused, because he was satisfied in the belief that he was unconscious of committing any legal wrong; and he thought it was contrary to

the moral principle of the law of Scotland to convict any man of an offense unless he knew he was doing wrong. That was ground upon which he might acquit accused, but it was ground which he probably would have to contest in the High Court of Justiciary, where the question might be raised as to whether it was not part of the law of Scotland that a man was not to be found guilty unless he had done an act fully, wickedly and feloniously.

THE TWO ELECTRICS THAT TOURED 1,000 MILES AND CLIMBED MOUNT WASHINGTON



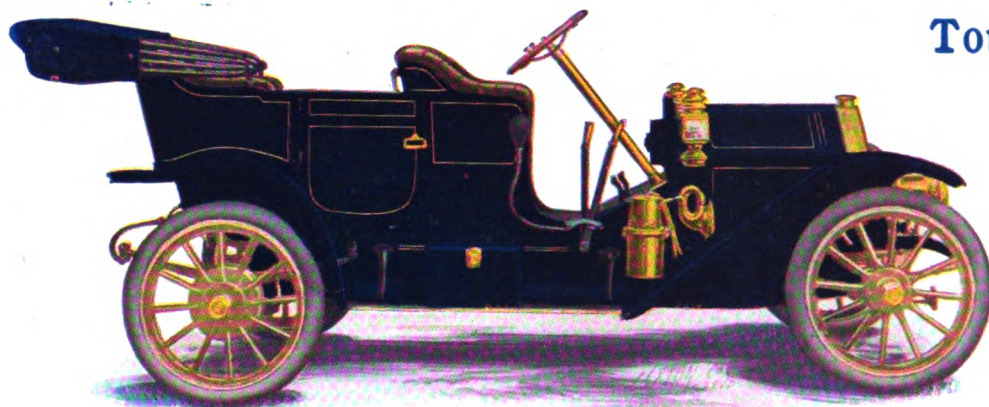
1-ANDERSON HALTING ABOVE THE CLOUD LINE  
2-BAILY CAR ON THE ROCKY WAGON ROAD

3-BAILY CAR AT HIGHEST POINT REACHED, BLOCKED UP TO RESIST WIND STORM  
4-ANDERSON CAR AND THE WAGON THAT CARRIED SUPPLIES



# Great Western FORTY

Touring Car  
\$1600



## Twenty-Seven Hundred Points to Save a Human Life

"Honk!" "Honk!" "Honk!" "Honk!" A woman's scream, a cloud of dust and then—CRASH! Twenty-seven hundred points lost, two lives risked—but one life SAVED—a WOMAN'S life. It happened in the recent MUNSEY HISTORIC TOUR, in a little New England village. Down the road thundered LaMar in his powerful machine—the Great Western 40. For ten miles the road ran along a creek, until it reached a small narrow bridge crossing the creek. At this point it was necessary to make a sharp turn—one of the many dangerous turns usually found in the country. The Bridge was entirely obstructed from view until LaMar was almost upon it. He couldn't see the lone horse and carriage on the bridge until it was too late. What could he do—not a hundredth part of a second could be lost. There was only one course open—and that practically meant suicide. But LaMar's mind was made up. With wonderful coolness and a nerve like steel he did the unexpected—what one man in a thousand would have thought of in such a horrible crisis. He crashed into the side of the bridge with a force that made the earth tremble, and threatened the collapse of the structure. He risked his own life and the certainty of winning the contests—but SAVED a life. It was an awful bump—but the almost infallible Great Western 40 was righted and finished with the leaders. Such is the character of the man, LaMar—and the durability of the car—the Great Western 40.

## The Blazed Trail

From coast to coast—everywhere in the civilized world—the Great Western 40 has left a glorious trail—a trail five years long, blazed with almost impossible achievements. Its past has been great. Its FUTURE will be GREATER. Every car—from the first one built—has been a credit to its makers.

The remarkable performance of this wonderful new car started men to thinking—men who already owned cars—men who EXPECTED to, and men who were EXPERTS. They never saw such service from a car costing less than \$4,000 or \$5,000. They wondered how we could sell the Great Western 40 for \$1,600. (This is possible only by breaking all traditions—basing price on cost of manufacture, plus selling cost, plus a fair profit.)

Soon it became the favorite. Men who owned \$5,000 cars sold them and bought the Great Western 40 at \$1,600. They KNEW that they would get the same service—perhaps better—and that the cost of up-keep would be less. Men who intended to buy higher priced cars ridiculed the idea and bought the Great Western 40 instead. They, too, had seen the advantages. And they could save \$3,000 or more.

It was no longer necessary to pay \$5,000 for a big powerful car—for the service that such high priced cars would give. Over \$1,600 was too much. Thousands of men had changed their minds. For in the Great Western 40 they get the utmost. Then men who wanted to invest only \$1,000 or so in a car saw the folly of such a movement. They recognized the wisdom of adding a few hundred, and getting the utmost—a big powerful \$5,000 car for \$1,600.

It wasn't long before the Great Western 40 was the people's idol. It became a BUSINESS car, as well as a pleasure car. Merchants used it, doctors used it, solicitors, real estate and insurance men—men in every business—owned Great Western 40's. Their cars gave them unheard of satisfaction. For five years it was the popular car—and STILL is the car most talked about.

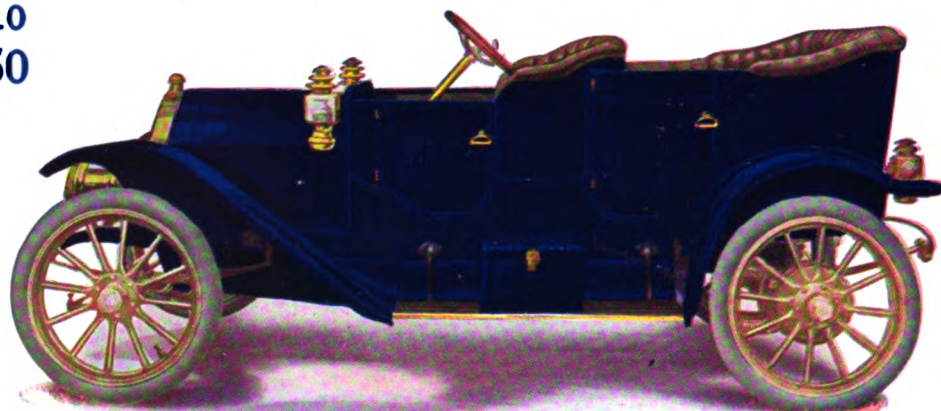
Records that we have kept show the Great Western 40 enduring the most abusive tests. Standing up under drivers who never consider a car—giving almost impossible service to farmers in country, and doing everything asked by the experienced critical man in town. Over rough, hilly country roads, fields and swamps, where no car but one built like the Great Western 40 could ever stand up.

Through congested traffic, where quick action is essential. Here the Great Western 40, though a massive car,



# Great Western 40

**Semi-Torpedo**  
**\$1650**



slips in and out of tight places, when less responsive cars must wait. All this with never a balk—seldom a mishap. If any car is trouble-proof, it is the Great Western 40. No man ever cursed it—no man ever kicked at its cost of upkeep. For not even the lightest of cars surpass it in economy of maintenance.

Its only expense—and that is low—is for oil and gasoline. Twenty-one miles on a gallon of gasoline is nothing for the Great Western 40.

Your tire expense—so far below the average—is hardly worth recording. This great economy is due to the car's wonderful lightness, special springs, general construction, steady motor, ease of operation, absence of vibration.

So now you can see that the scares you have had from discontented owners of expensive cars were not meant for the Great Western 40.

## See What It Has Done

The greatest proof of all this is its wonderful record—its horrible trial in the Glidden Tour. 2,851 miles of awful, torturous, muck and rock, through deep swamps, desert sands, up steep, rocky winding hills, past the wrecks of cars that failed to endure this awful gruelling—cars costing almost TREBLE its price.

Through these 2,851 miles of misery—without even a delay or break-down. And it finished in Chicago with the leaders—cars costing as high as \$5,000. Such is its power of endurance, of superiority.

It won with ease the Pittsburg Hill Climb. And then the Chancellor and Lyons perpetual Trophy, in the rocky, unbearable California Mountains. Thus it added further to its glories. It proved itself the ALL-PURPOSE car. Able to go where many cars fear to tread—and come back. Able to climb the worst hills and mountains, or give you the road care of your life. These great feats—these victories over cars of great cost—amount to just one thing: SERVICE—GREAT WESTERN 40 SERVICE. It is a service that the car is giving to its thousands of owners every day—all over the world. In all its past—its five years of triumphs—the Great Western 40 has been wonderful.

But its future will be better. We have done many things to insure THAT.

## What 1911 Offers

The 1911 line includes a varied assortment of body types that ought to meet the requirements of any prospective buyer, regardless of his profession, business or pleasure. The touring car has the same general lines as the 1910 model, with some general refinements in detail finish. The wheels are now painted cream, setting off to greater advantage the pleasing lines of the deep coach blue body.

One of the new types shown is a Demi Tonneau with a combination Roadster, equipment furnished without additional charge. This Demi Tonneau is intended for four passengers, but it is very roomy, and has the advantage over the average small tonneau of having plenty of room between the back of the front seat and the tonneau seat.

The body is fitted with a hooded dash, and when converted into a roaster makes a very fine touring car. This combination car is also painted a deep coach blue and equipped with cream wheels.

These body types are all mounted on the same chassis. We are devoting our entire time to the building of this 40 H. P. machine. The finishing details are changed on the various models so that they present varied styles. But by building only one model chassis we are able to turn out a much finer product than where different chasses are built, and at the same time make a lower list price than would otherwise be possible.

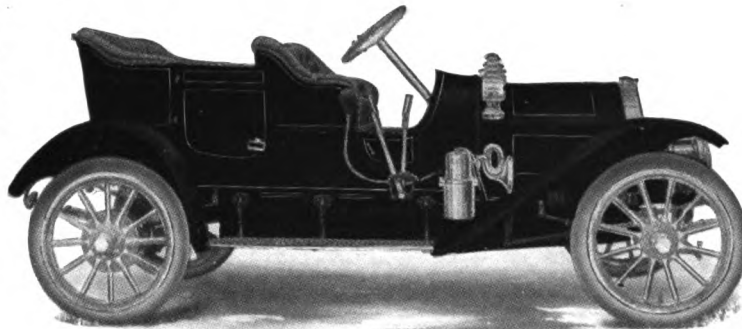
One of the very popular types illustrated here is the four-door Semi Torpedo car that has neither the extreme lines of the torpeda nor the unprotected driver's seat. This model, which lists at \$1,650, is a beautiful royal purple, while the trimmings of the body and dash are in circassian walnut. The sides of the body are high and very luxuriously upholstered.

One of the novel features of this body is the compartment between the front seats where the driver can handily keep small articles or memorandum books that are frequently used. The radiator is painted to match the body and the tubes are aluminized, making in all a very pleasing effect.

For the admirers of the Full Torpedo effect we have produced a Full Fledged Torpedo type body listing at \$1,750. This car is of a very handsome lines and is intended for a four passenger torpedo, although the tonneau is

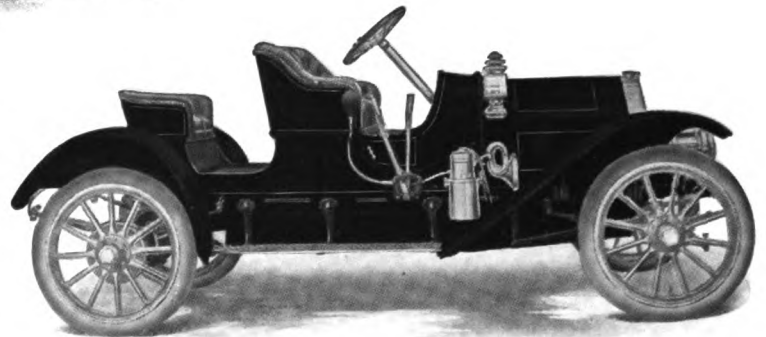


# Great Western FORTY



## Demi Tonneau \$1600

Two automobiles at the price of one. Both bodies go with the car at \$1600



very roomy. The body is fitted with invisible hardware and the doors are equipped with locks and keys so that a person leaving the car standing for any length of time may keep the doors locked against intruders.

This model is equipped with a Prest-O-Lite tank in addition to the regular equipment, and has 35x4 inch tires.

Mechanically there was very little to improve upon. The records of the 1910 Great Western 40 have so helped to impress the fact that the strength of constructions and sturdibility of the chassis are entirely satisfactory that few changes in mechanism could be suggested.

The wheel base has been lengthened to 114 inches, which is considered ideal for this type of car. The 1911 motor is again of the long stroke type of construction, the bore being  $4\frac{1}{4}$  inches and the stroke 5 inches. The cylinders are cast separately with intergral water jackets.

The motor has been improved in appearance by polishing the aluminum parts and by enameling the cylinders. A Schebler carburetor and a Remy magneto, both of which have been used on Great Western cars in previous seasons, are on opposite sides of the motor. The five-bearing type of crank shaft is being continued, for with  $14\frac{1}{2}$  inches of bearing surface a broken crank shaft has never been heard of in a Great Western 40.

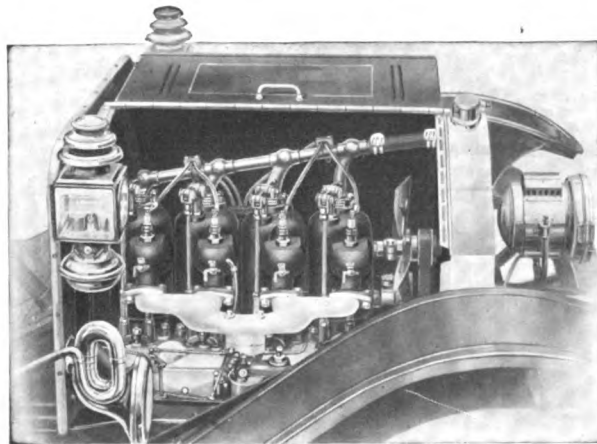
The piston is of the convex head type which not only strengthens the construction, but reduces the expansion, at the same time increasing the compression. This type of piston prevents oil from collecting on the piston heads, and helps to do away with an accumulation of carbon. Oil grooves are provided at the bottom of the pistons to distribute oil to the cylinder walls. In addition to the five-bearing crank shaft feature the strength of construction maintained throughout the car is shown in the design of the crank case. It is of I-beam sections through which steel studs run, one end of each bolting through the cylinder base and the other end through the crank shaft cap. The bearings used throughout the crank shaft are nickel babbitt die cast.

The cam shaft is a solid forging with the cams intergral, and can be removed from the front of the motor without disturbing the balance of the parts. The intake valve is on the side, and the exhaust valve in the head of the

motor, where the exhaust gases are discharged very quickly so that the intake gases go into the cylinder without crossing the burnt exhaust gases. As the exhaust gases expand in their rush toward the muffler the expansion is taken care of by the enlargement of the exhaust manifold which is four times greater in area at the muffler pipe end than at the exhaust port of the cylinder.

A vent pipe has been designed that releases the crank case compression, but through which oil cannot possibly be blown all over the motor, as with straight vent pipes. Layers are placed across the vent pipes on the inside, but lying first on one side and then on the other so that the compression is relieved and oil can be poured in through the pipe when desired.

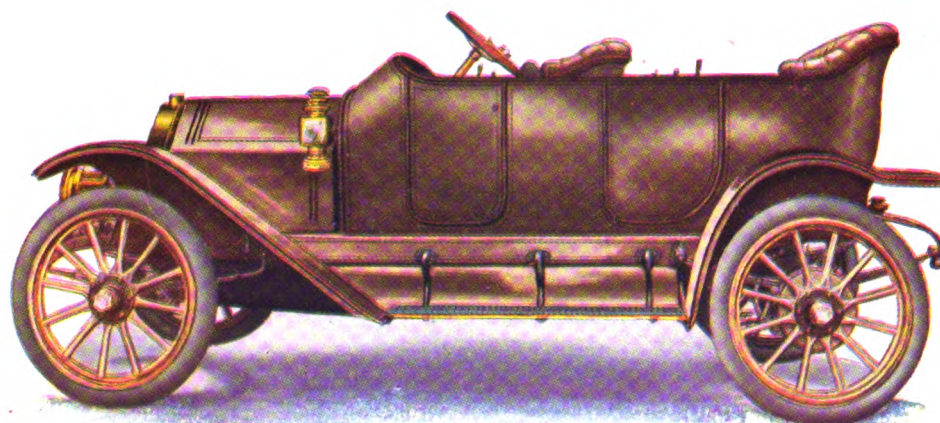
The lubrication system is contained in the bottom of the crank case. The oil level is fixed at the factory before shipment, so that the driver has nothing to adjust or worry about. The oil is pumped from the oil reservoir in the bottom of the case to a sub-bottom in the lower half of the crank case where the oil maintains a constant level with two holes, through which it returns to the oil reservoir.





# Great Western FORTY

**Torpedo**  
**\$1750**



The radiator is of standard construction, except that the water spaces do not come in contact with the frame. Thus leaks are avoided. This radiator is a little larger than the motor is supposed to require, so that all over-heating troubles are absolutely avoided. A centrifugal pump is used on the 1911 chassis.

The transmission is again of the selective type, with three speeds forward and reverse. But improvement in the past year has been made in the gears. The teeth are made for strength, and are liberally designed so as to stand abuse. A cone clutch is again used, covered with raybestos, with six engaging springs placed underneath the lining. This clutch operates very easily by a foot pedal and works so smoothly that it is being continued without change.

The steering gear is of the worm and sector type, with the spark and throttle levers above the steering wheel. On the Torpedo and Semi Torpedo models a dished aluminum spider is used with a laminated wheel. But the Touring Car and Demi Tonneau types have a brass spider with an ebony wheel. The front springs are semi-elliptic while the rear springs are three-quarter elliptic, and are now fitted with rubber bumpers throughout. An I-beam drop forged front axle with 11 inches road clearance is used. The rear axle is of the semi-floating type, the same as used in 1910 with success. A very substantial yoke slides on the housing of the propellor shaft, allowing for the variations in the position of the shaft on unequal roads.

The control set is conveniently placed just outside of the frame on all types except the Full Torpedo, in which model it is on the inside of the body. An emergency brake lever operates an internal brake, and the foot lever operates the external brake. These brakes are of very liberal dimensions and will hold the car on any hill.

All unnecessary parts have been eliminated and the design of the various bodies is not marred by clumsy attachments or exposed brake rods. A pressed steel drop frame is used with a sub-frame supporting the motor, transmission and clutch. The frame is narrowed in front. Thus the car can be turned on an ordinary street. These models are made in both the standard 56½ inch tread, and the 60 inch tread for southern use.

**Simplicity--Durability** Simplicity of construction and refinement of design make the Great Western 40 almost troubleproof. The motor is so responsive, so quiet, so steady. The absence of vibration is most conspicuous. Each cylinder is ground to watch-like accuracy, and it RUNS so, under any load, on any road, in any weather. Each part is made with one point in view: DURABILITY. And we are certain of getting this. For we make our own motors. Back of each is sixteen years of experience in making good gasoline motors up to 500 horsepower. And we have the facilities—and the skilled mechanics, to help.

Rated at 40, the Great Western 40 actually develops a full 40. But better than that it TRANSMITS that full 40. Power generated, but not transmitted, means power lost. Yet actual test of many cars prove conclusively power losses of from 10 to 20 per cent. Thus, you see, in the Great Western 40 you have an ample reserve of power for emergency. You can have all the power you need, WHEN you need it. And all the speed you want, WHEN you want it—60 miles an hour if you choose.

## Quiet Beauty -- Luxurious Comfort

Note the graceful, pleasing design of the Great Western 40. Its appearance, though dashing, is conservative, refined. A car fit to travel in the most select company—a car to make its owner justly proud. In the Great Western 40 you get something CLAIMED by EVERY car, but sorrowfully missing many: COMFORT.

The luxurious leather upholstery over finely tempered steel springs afford all the comfort of a Pullman. The 34 inch tires take you over the bumps and humps of the roughest roads with perfect comfort.

And the 114 inch wheel base—increased 2 inches from last year—adds further to the comfort of the Great Western 40.

If you buy a Great Western 40 you will have much to be glad for. All the service of a \$5,000 car for \$1,600—at a far lower cost of up keep. You'll have freedom from trouble and worry. For the dependability of the Great Western 40 abolishes all chance of ever being stalled on the road—10 miles from nowhere—away from help and repair shops.

You can be sure that you'll get where you're HEADED for, and BACK again, safely.

No car—at ANY price—affords a better investment than the Great Western 40. Now send for complete specifications, and learn about the car that set the motor world agasp—the all-purpose car—the car that NEVER LAYS DOWN.

USE THE COUPON—It's for your convenience.

**Great Western Automobile Company**  
PERU, INDIANA

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Great Western Automobile Company,  
Peru, Indiana.

Send me by return mail information concerning:

Your motor ears..... ☐

Your proposition to dealers..... ☐

Mark with cross ☒

Name .....

Address .....



## ELECTRICS IN TOURING TESTS

**Extended Trials of Edison Battery Reveal  
Its Advantages for Heavy Mileage—  
"Climb to the Clouds."**

It is probable that the history of the automobile industry holds no record of a "pathfinding trip" more significant in its true meaning than that recently completed by two electric vehicles in covering the 1,000 miles route of the so-called ideal tour through New England. Although its promoters have not applied that designation to it, it actually was of the nature of a pathfinding expedition in the sense that,



ELECTRICS READY FOR THE "CLIMB TO THE CLOUDS"

besides demonstrating the perfectly obvious fact that it is possible to make such a trip in an electric car, it served to locate suitable charging points where the service necessary for such an undertaking can be obtained. In consequence of this exploit, it is confidently hoped that within a year or two the use of electrics for touring over charted ways no longer will be considered extraordinary, but will become decidedly popular with certain classes of motorists.

The tour, which was taken by the two cars, running in opposite directions, was the culmination of an extended series of tests devised to demonstrate the practicability of the electric for use as a true family car for general purposes, and also to demonstrate the advantages of the new Edison battery. The entire undertaking formed the subject of an illustrated lecture delivered by Frank L. Dyer, of the Edison Battery Co., before the Electric Vehicle Association of America, at its first annual convention in New York this week. These runs, totaling a mileage of more than 3,200 in the aggregate, have occupied the whole summer and covered a wide range of territory.

"These trips," said Mr. Dyer, "constitute the work that has been done so far in

showing the public that the electric is a car of unsurpassed utility and of great convenience. They were taken without the slightest hardship, but on the contrary the young men who actually achieved the performances enjoyed their experiences. Even now a repetition of any one of them can be safely undertaken by any properly equipped electric car, but in the future no doubt the opportunities for charging will be improved. While to many these performances of electric automobiles may be in the nature of a revelation, further trips are in contemplation that will be even more remarkable."

Summarizing briefly the entire campaign, many of the details of which have not been published hitherto, Mr. Dyer continued:

"The routes embraced many of the suburban towns of New Jersey, Long Island, and Staten Island. In laying out these runs the ordinary good automobile routes were chosen irrespective of grades, the idea being to cover the same roads that would naturally be used by any other type of vehicle. Each trip called for the accomplishment of from 85 to 100 miles to be made on a single charge of the battery. In every case, after the return over the scheduled route, the vehicle was run to a standstill to entirely exhaust the battery and determine the excess mileage still retained in the car, thereby indicating the safe margin after each trip. . . .

"These day tours were open to any manufacturer who was in position to use the Edison battery. The S. R. Bailey Company, of Amesbury, Mass., and the Anderson Carriage Company, of Detroit, Mich., were the first to enter. . . . The battery equipment of the Bailey and Detroit cars is 40 cells, each of the Edison A-6 type, the normal charging rate of which is 45 amperes at 75 volts for 7½ hours. . . . The cars were weighed with their load, showing 2,357 pounds for the Bailey and 2,448 pounds for the Detroit. . . . Strict care was taken that the pressure in tires should re-

main constant, so as to obtain true odometer readings, and all tire troubles were carefully noted.

"The first run was made by the Detroit. Starting from New York at 7:28 a. m., the car proceeded to South Ferry to St. George, Staten Island, thence by way of the Richmond turnpike and Old Stone road through Tottenville, back over the Amboy road through Richmond to the Elizabethport ferry. From Elizabethport the route continued through Elizabeth, thence by way of Norris avenue to Union, thence by Irvington avenue to Orange, thence through Bloomfield to Hackensack; from there to Fort Lee and Undercliff, across the ferry at 130th street, down Riverside drive to the starting point, which was reached at 5:02 p. m. Taking out the time for lunch and delays at the three ferries, the running time was six hours and 58 minutes, the distance being 84 miles, giving an average speed of 12.07 miles per hour. This is certainly a fair average when we consider the numerous stretches of freshly tarred roads that were encountered and the fact that on the northern portion of the run, towards its end, the grades were quite stiff, often as high as 2 per cent. Excess mileage being run off in New York showed a safety surplus of 18 miles, making a total of 102 miles for the day on a single charge.

"The second run was made with the Bailey car, starting from 40th street to the 23d street ferry, thence to Jersey City. From there the car proceeded across the meadows, the road at that time being under construction and in bad condition; through Newark to Montclair, up the Valley road to Great Notch, over some exceedingly stiff grades to Little Falls, along the Pompton turnpike to Mountain View and Pompton. This as any one who has been over this section of the country knows, is a beautiful run, affording occasional views of the Passaic river winding through its tunnel of over-hanging trees. The route continued to Pompton river and lake, and the quaint, now almost unused, Morris canal; thence to Butler and return, thence with some stiff grades over Preakness mountain to Haledon, through Arcola to Hackensack to Fort Lee and Undercliff, ferry across the Hudson, and Riverside Drive to the starting point. The total mileage was 76 miles, and the time, omitting stops, was five hours and six minutes, giving an average speed of 13.19 miles per hour. Excess mileage being run off in New York, showed a surplus of 40 miles, making a total for the day of 116 miles, on a single charge. Some parts of this particular run may be spoken of as almost mountainous, grades of 10 per cent. being frequently met."

Three other runs made by the same cars resulted in mileages and average speeds as follows: 122¼ miles, at 12.38 miles per hour; 139½ miles, at 13.71 miles per hour; 113 miles, at 12.47 miles per hour.

"To demonstrate the dependability and reliability of a single battery charge," Mr. Dyer goes on to say, "the Detroit driver was facetiously given the role of a sick woman (his name was Darling) under the doctor's orders to spend at least an hour and a half per day for a week in her electric in Central Park, but unfortunately whose credit at the garage was low, so that she was able to pay for only a single 7½ hours charge at the normal rate. In this test no water was given the batteries, and for the seven days the charging socket was sealed. For seven successive days from one and one-half to two hours each day the car was run in the park, and showed at the end of that time an odometer reading of 120 miles, at an average speed of 12.32 miles per hour. The cost of the current consumed was \$1.42 or 21 cents per day for a trifle over 18 miles.

"Another interesting test was in connection with Fort George Hill, the Mecca of all 'hill climbers' in and around New York; the Bailey car was given the task of finding out how many times she could make the ascent. The hill is 2,238 feet in length, and, according to the Engineering Department of New York, the grade is 11 per cent., the road bed being a fair granite block. The car was started from a standstill at the foot of the grade each time, and made 21 successive trips up the hill, on a single charge of the battery. This particular performance means a climb of almost one mile into the air in eight miles, to say nothing of coming up grade for nine miles from the garage to reach the hill. . . .

"It was next thought feasible to take a week's tour, representing perhaps the maximum leisure a busy man might be able to secure, and which he might desire to pass in a pleasant, profitable and economical way. After a little correspondence regarding charging stations in Pennsylvania, it was decided to circle the state of New Jersey, making night charging stops at Asbury Park, Atlantic City, Philadelphia, Bethlehem, Port Jervis and Newburg. The roads in New Jersey were in good shape, but those in Pennsylvania were bad, and the grades were heavy and full of short waterbreaks. The daily runs by the two cars, taking the roads by and large as they came, varied between a minimum of 94 miles, in every case on a single charge. The total mileage was 489.

"The success encountered on this particular trip was so pronounced that it was then decided to attempt the 'Ideal Tour' of approximately 1,000 miles. . . .

"The Bailey and Detroit cars, with their crews of two men each, equipped with baggage and necessary touring outfit of tools and tires, left New York City on Saturday, September 17th last, and arrived at Waterbury, Conn., their first stopping place, the same night, both in good form, one car having taken the Hudson river route and the other that along the Sound.

"After recharging their batteries at Waterbury on Saturday night, the cars parted, the Bailey making her next stop at Pittsfield, Mass., and the Detroit proceeding to Boston by way of Hartford, Springfield and Worcester. The third night saw the Bailey car at Manchester, Vermont, where she was confronted by one of the extreme tests of the trip—the passage over Peru mountain with its rough roads and heavy grades. The owners of large gasoline cars laughed at the Bailey crew, when they were told what was to be attempted, saying that the feat was absolutely impossible. Nevertheless, the car went over in fine shape and reached Springfield the next evening. A short delay was experienced here in charging due to lack of water power at the Central Station.

"Meanwhile the Detroit car was spinning along the Massachusetts and Maine coasts, through Portsmouth and Portland on to Poland Springs, . . . the Bailey going through Claremont, New Hampshire, and Newport, past Sunapee lake, and making her night stop at Plymouth and again recharging. The Detroit at this time was plowing through heavy sand from Poland Springs, en route to Bretton Woods, to gain which she had the climb through Crawford Notch and over Tug-o'-War Hill—the Waterloo of many big cars.

"Both cars met at Hotel Bretton Woods, Mount Washington, a trifle behind the regular schedule, due solely to delays in charging, for it must be realized that on this maiden trip through the localities where electric cars were practically unknown, some of the charging facilities were decidedly crude.

"At Bretton Woods a pleasant diversion from the original schedule was decided upon, no less than an attempt to climb to the summit of Mount Washington by the wagon road. The cars were therefore driven to Jackson, the nearest charging point, and thence to Glen, the base of the actual climb. Due to unavoidable delays and heavy weather, it was necessary to spend the night at the 'Half Way House,' and continue the climb next morning. . . .

"The actual summit of the mountain was not reached, owing to the presence of sleet, hail and a heavy gale, which made it impossible, but the cars were not turned back until they had ascended nearly 6,000 feet and were within one mile of the top. . . . The return through a blinding rain and wind storm that swept the mountain and made the road almost undiscernible was a trip never to be forgotten by the two drivers.

"From Bretton Woods the two cars continued over the prescribed route without mishap and substantially on schedule. The Bailey odometer showed a total mileage of 1,017.99 miles, the actual running time was 86 hours and 31 minutes, and the average speed for the entire trip was 11.77 miles per hour. The Detroit made a total of

1,017.73 miles in 89 hours and 25 minutes, with an average speed of 11.35 miles per hour."

#### How to Clear the Running Board.

In refitting used cars it is a very good plan to clear the running board of encumbrances, as is being done by a number of manufacturers in turning out their new models. With rare exceptions it is possible to arrange a mounting for the gas tank under the body; either in the rear, or inside the frame between the gear box and one of the side members. The tool and battery boxes are not so easily disposed of, but by utilizing to the best possible advantage the space under both the front and rear seats it generally is possible to get them out of sight, without rendering access to them at all difficult. The clearing of the running boards possess the double advantage that it improves the appearance of the machine and that it leaves ample room for carrying a number of suit cases.

#### To Keep Motor Truck Engines Cool.

Operators who have had experience chiefly with cars of the pleasure type should bear in mind that certain peculiarities inherent to its work render the cooling of a motor truck engine considerably more difficult. The main difficulty in connection with the cooling of a commercial vehicle engine is that owing to the relatively high speed of the motor and slow speed of the car the natural circulation of air over the radiating surfaces is considerably reduced. Therefore, it is extremely important to make sure that the fan driving belt or gearing is in good condition at all times, and also to see that the circulating system is free from deposits and the pump in working order.

#### Value of Recording Tire Mileage.

Motorists who take the small amount of trouble necessary to keep an accurate odometer record of the mileage of each of their tires will find themselves well repaid in the end. By observing the exact amount of service rendered by each shoe a standard soon is developed by which the performance of new equipment may be judged, while any sudden deficiency in the case of one or two wheels, may be taken as an immediate indication that something is wrong with the mechanism or that the wheels are out of line.

#### Why Locking Ring Should be Secure.

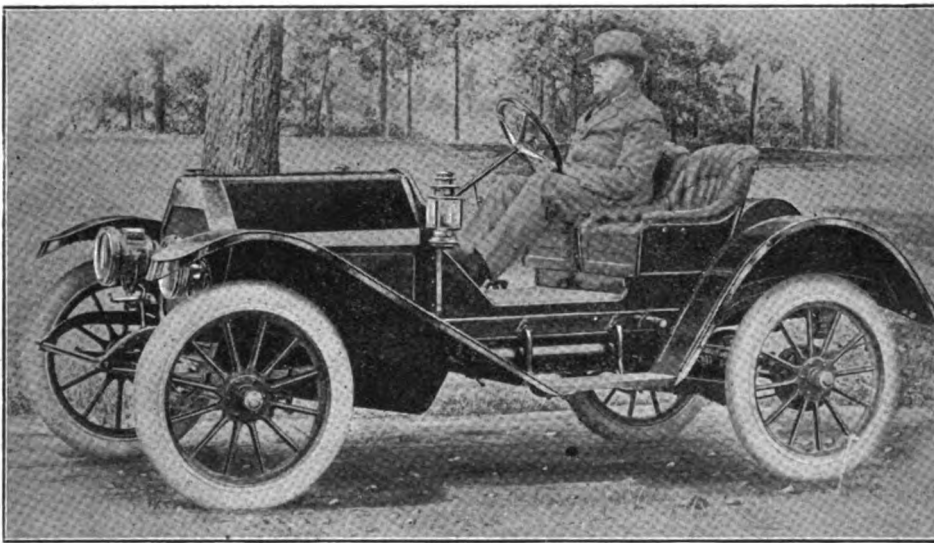
In replacing tires on quick detachable rims which are of the variety in which the removable flange is secured by a locking ring, care should be taken to see that both the flange and ring are properly in place before the type is inflated. If this is not done, there is considerable risk that the attachment may not be made positive, in consequence of which there is danger of "throwing" the ring with some little risk of injury to passing traffic.

**OVERLAND'S TWO NEW OFFERINGS**

**Toledo Company Produces a \$900 Touring Car and a \$775 Runabout—Characteristics of the New-Comers.**

Although preliminary announcements of the Willys-Overland Co., Toledo, O., had indicated that its new line consisted of no less than 13 different models, the existence of still another model, a fourteenth, known as model 47, is revealed unostentatiously by an advance catalog which just has been issued. This new-comer is a touring car listed at \$900, although its specifications place it in the class with machines which often are

light delivery wagon with 25 horsepower motor and built in either open express or closed delivery styles; "38," which is a light four passenger touring car equipped with the Overland pattern of planetary change gear, pedal controlled; "40," a 40 horsepower runabout which may be arranged for two, three or four passengers and which has three-quarter elliptic springs in the rear to ensure comfortable riding over even the worst of roads; "42," a 40 horsepower touring car with selective change gear, 112 inch wheel base and 34 by 4 inch tires; and model "41," which is similar to the last named model, save for its lighter general construction, some differences in body design, and that it is equipped with the planetary style of change gear.



SALES-MANAGER G. W. BENNETT IN THE NEW \$775 OVERLAND

sold at a considerably higher figure. It has the 20 horsepower motor which is employed in model "46," but its wheel base is longer than that of the torpedo runabout, being 102 inches, and it is equipped with 32 by 3½ inch tires.

The other striking Overland innovation is the popular priced model 45, listed at but \$775. It is a runabout of 20 horsepower. In the accompanying illustration the car is shown with Sales Manager George W. Bennett seated behind the steering wheel. In the range of 20 horsepower runabouts in which its general specifications place it, it is distinguished by its full-elliptic rear spring suspension, which renders it suitable for use over rough roads as well as city and suburban boulevards, and its large capacity gasoline tank, which likewise fits it for touring purposes. Its wheel base is 96 inches and it is equipped with planetary change gear, multiple disc clutch and the Remy magneto. It is shod with 32 by 3 inch tires, the 32 by 3½ inch size being furnished, when required, as an option.

The new Overland product, considered as a whole, includes the perpetuation of five styles of car that have been built during 1910. They are models "37," which is a

Of the new models, "46," "50" and "53" are torpedo runabouts, while "54" is a torpedo runabout of very nobby proportions. "46" differs from the "45" model already mentioned, principally in the matter of its body design, the chassis being practically the same. Model "49" is a revision of the continued model "38," having the 25 horsepower motor, 102 inch wheel base and full elliptic rear springs. Unlike the older model, however, it has the sliding pinion form of change speed gear.

An option as to the open or closed-front style of touring body is afforded in the case of the new model "51," which is a 30 horsepower five passenger touring car having the selective transmission and 110 inch wheel base, three-quarter elliptic rear springs, selective transmission, and the Bosch "two independent systems" ignition arrangement which employs eight spark plugs and allows complete independence between the magneto and battery, the three large models have the 40 horsepower motor, 34 by 4 inch tires and are the most elaborate cars in the line in their respective classes. In the order named they are a standard touring car for five passengers, a torpedo runabout seating two, and a tor-

pedo touring car for four passengers.

The complete line thus musters two commercial vehicles, six runabouts, one of which is adaptable for two to four passengers; three touring cars for four passengers and four for five passengers, making 15 in all, or 14, if the two styles of commercial body adapted to the same chassis be counted as a single model. Three models are of 20 horsepower, three of 25, two of 30 and six of 40. Except in the case of the three large models mentioned above, ignition universally is effected by means of the dual system with the Remy magneto as standard equipment. Engine lubrication is effected by a force-feed oiler driven by the cam shaft, except in the case of models "40," "41," "42," "52," "53" and "54," these motors being equipped with a self-contained oiling system located in the crank case.

#### To Handle German Steels in America.

The Becker Steel Co. of America has been incorporated under the laws of the state of New York to handle, in the United States, the products of Stahlwerk Becker, A. G., Willich, Germany. The plant of Stahlwerk Becker has one of the most modern equipments in the world for producing high grade steels of all descriptions, particularly alloy steels of difficult fusibility, as all steels are electrically melted in Paul Girod furnaces. George B. Norcross is general manager of the American company. Offices and warehouses already have been established in New York and Detroit, and the company contemplates locating similar establishments in all of the principal industrial centers of the United States, so that shipments can be made promptly from the large and well assorted stocks which will be carried. All types of alloy steels used in the construction of automobiles are supplied and are furnished promptly in either bars or forgings.

#### Stock Offer to Stimulate Co-Operation.

As an earnest of his belief in the policy of co-operation, President Benjamin Briscoe, of the United States Motor Co., has caused to be set aside \$1,000,000 worth of its 7 per cent. cumulative stock, which is offered to the company's employees, with participation in proportionate distribution of a block of common stock aggregating \$250,000, thus enabling all its employees to become stockholders in the concern. Any one in its employ, including its agents, will be privileged to subscribe. President Briscoe's plan is to sell the preferred stock on the instalment plan, turning over to a board of trustees all stock subscribed for by an employee, which trustees will hold until the same is fully paid for. The employee shall have the privilege on and after August 1, 1911, to continue his payments or withdraw all he has paid in plus 4 per cent. interest per annum. In order to induce him to continue investing, a bonus of 25 per cent. in common stock will be given to stock-holding employees.



# Profits of a Metropolitan Motor Bus Line

The possibilities and actualities of motor bus transportation are well illustrated by the annual report of the Fifth Avenue Coach Co., of New York, which just has become public property, and the growth of which has been so quiet as scarcely to be realized by the average resident of the big city, despite the conspicuous figure which the big, double-deck buses present on the public streets. These buses have entirely replaced the smaller horse-drawn coaches which previously were employed and, as was the case with the latter vehicles, they ply Fifth avenue, Riverside drive and St. Nicholas avenue, which practically are the only chief thoroughfares on which the trolley car has not yet encroached. The company's report covers the fiscal year ending June 30, 1910, and apart from the marked increase of the buses' popularity which it discloses, it is remarkable as indicating that

not one of the 61 vehicles employed had to be withdrawn from active service during the 12 months.

Although the equipment of the company did not experience any increase in point of number of cars employed, it carried fully 74 per cent. more people than in the 12 months preceding, the figures for the two years being 6,305,165 and 3,009,294 respectively. Of these 6,305,165 passengers carried, 5,755,221 were adults paying ten cents per ride, while 549,954 were children who paid five cents each. For depreciation the company charged off one-third of the purchase price of the buses, amounting to \$112,583.28, while for depreciation of the tire equipment \$55,125.76 were allowed, or over 10 per cent. more than the entire capital of the company. With its gross receipts in fares fixed at \$603,019.80, the income per bus mile amounts to 45.67 cents,

and as the transportation expenses for the 1,320,432 miles figured up to \$247,020.33, the expenses per bus mile amounted to 18.71 cents, not including depreciation of equipment, maintenance of buildings, etc.

The increased popularity of the motor buses was responsible for the great increase of the surplus of the company. Although the corporation is capitalized at only \$50,000, it was able to put \$27,879.77 in the surplus capital, or more than 50 per cent. Another example of its economical management is hidden in the item "office furniture and fixtures," which has remained at the modest sum of \$263.90, an increase of but \$28.50 over that of the preceding year. At the same time the cash capital in hand is in excess of the total capital stock outstanding, a condition of affairs which is highly creditable to the management of the company. The report in detail:

## Operating Statement.

	1910	Year's increase or (*) Decrease
Number of omnibuses (exclusive of two non-revenue cars).....	61	
Number of round trips made during year...	153,609	56,679
Number of bus hours during year.....	177,832	65,736
Number of bus miles (including 39,768 "idle" miles).....	1,320,432	524,057
Number of passengers carried at 10 cents...	5,755,221	2,332,507
Number of passengers carried at 5 cents....	549,954	363,364
(Queensboro Bridge discontinued September 20, 1909.)		
Total amount of fares (45.67 cents per bus mile).....	\$603,019.80	\$251,418.90
Revenue from livery service.....	13,053.19	5,268.62
Advertising.....	14,232.12	4,232.12
Miscellaneous.....	20.00	*.01
Total revenue from operation.....	\$630,325.11	\$260,919.63
Maintenance, building and fixtures.....	\$4,288.91	*\$13.18
Tires (Depreciation of tires in 1909).....	55,125.76	27,768.44
Maintenance, equipment.....	74,923.28	39,417.99
Depreciation, vehicle equipment (a).....	112,583.28	46,989.64
Conducting transportation.....	247,020.33	108,009.90
Damages and injuries (b).....	18,085.71	15,033.36
General expenses.....	20,746.37	4,406.96
Discount on material and supplies. Cr. (c).....	1,606.31	1,606.31
Total operating expenses.....	\$531,167.33	\$240,006.80
Taxes.....	\$34,059.29	\$14,230.22
Income from operation.....	\$65,098.49	\$6,682.61
Non-operating income (interest).....	725.06	*145.71
Gross income applicable to corporate properties.....	65,823.55	6,536.90
Income deductions—Interest on advances..	36,714.76	*532.14
Net income for year.....	29,108.79	7,069.04
Deduct profit and loss adjustment.....	\$1,229.02	*\$2,128.84
Net increase of surplus.....	\$27,879.77	\$9,197.88

(a) Depreciation is charged at the rate of one-third of the cost of omnibus equipment (on an assumed life of 3 years for buses), to create a reserve for replacement. No buses were withdrawn from service within the year.

(b) The charge to expense for damages and injuries is the equivalent of three cents per bus mile, but the actual payments during the year were \$4,570.35 (including \$1,937.21 on account of

Assets.		
Cash.....	\$50,477.09	\$13,261.24
Accounts receivable.....	5,929.09	*5,379.20
Materials and supplies.....	22,433.16	3,889.25
Total floating capital.....	\$78,839.34	\$11,771.29
Motor Omnibuses.....	\$351,421.95	\$32,840.88
Columbia car.....	1,193.65	
Shop tools, machinery, fixtures, misc. equip.	8,362.65	2,574.80
Office furniture and fixtures.....	263.90	28.50
Contracts and rights.....	25,105.27	
Station improvements.....	7,802.33	
Total fixed capital—gross investments.....	\$394,149.75	\$35,444.18
Deduct depreciation omnibuses, Cr.....	\$202,439.62	\$112,583.28
Depreciation station improvements, Cr.....	6,220.01	3,164.64
Fixed capital—Net investment.....	\$185,490.12	*\$80,303.74
Prepayments.....	\$2,733.14	*\$305.42
Deficit.....	430,336.77	*27,879.77
Total assets.....	\$697,399.37	*\$96,717.64

Liabilities.		
Taxes accrued.....	\$27,043.18	\$10,917.31
Bills and accounts owing to associated companies.....	552,062.96	*147,395.41
Miscellaneous accounts payable.....	21,136.46	3,992.08
Accrued interest, wages, and other unfunded debts.....	9,262.05	*189.13
Reserve for injury and damage claims (including other reserve of \$531.83 in 1910)	37,894.72	35,957.51
Capital stock.....	50,000.00	
Total liabilities.....	\$697,399.37	*\$96,717.64

Employees—On June 30, 1910: Conductors, 72; drivers, 70; others, 99; total, 241. Total salaries and wages, \$181,509.76. Included herein are 28 officers and clerks of the New York Transportation Co., who perform service for the Fifth Avenue Coach Co., and a portion of whose salaries are charged to it.

Accidents—Killed, 3; injured, 25.

previous years). This reserve was begun June 1, 1909. After paying the amount mentioned, the balance in the reserve was \$37,362.89. At the beginning of the year there were 13 claims and 17 suits for damages on account of personal injury; at the close of the year there were 10 claims and 13 suits.

(c) Reported under non-operating income, here deducted from expense.

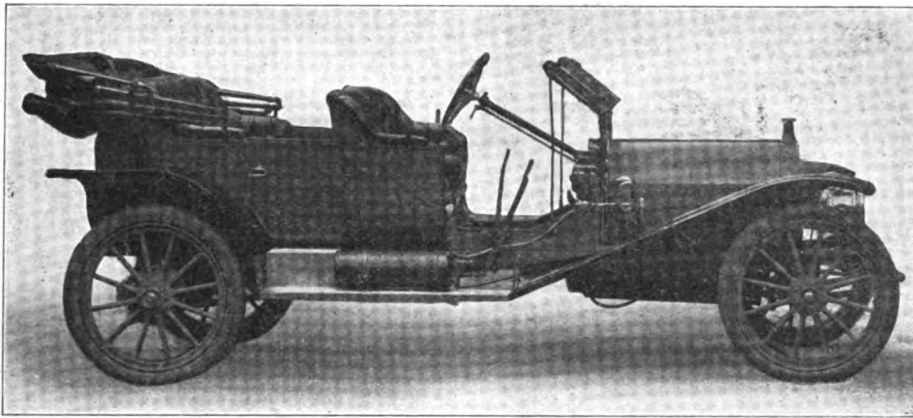
**HUPP BRINGS OUT A LARGER CAR**

**It's a Full-Size Touring Model Listing at But \$900— Two New Bodies for the Popular "Little Hupp."**

Having originated the small runabout of striking appearance, which made such a quick "hit"—the "little Hupp," as it is familiarly termed—the Hupp Motor Car Co., of Detroit, Mich., now have launched a larger model, a full-size four passenger touring car, listing at but \$900, which is certain to command attention.

This car is equipped with the Hupp 4 cylinder, 20 horsepower motor. The cylin-

crank case extension, thus forming a unit power plant. The gears run in oil, the one universal joint at the rear of the transmission being enclosed in a dustproof case and lubricated by oil which flows from the crank case. The car is driven by a shaft which turns within a steel tube, this tube taking all of the torsional strain. The differential housing is well ribbed. Hyatt roller bearings are used on the outer ends of the axle. The foot and emergency brakes are both internal expanding and have a non-burning lining. The front axle is an I-beam section drop forging, with integral spring seats, and the springs are semi-elliptical in front and of a patented cross spring construction in the rear. Oil cups are attached to all spring bolts. The wheels are



THE NEW 20 HORSEPOWER \$900 HUPMOBILE TOURING CAR

ders are  $3\frac{1}{4}$  by  $3\frac{3}{8}$  and are cast in pairs, having the valves on the left side with adjusting nuts on the valve stems; the spark plugs are placed over the inlets. The crank shaft bearings are of Parsons white bronze. The pistons have three rings. Every moving part except the flywheel and valve stems is enclosed in oil tight and dust proof housings. Lubrication is accomplished by the splash system, the flow of oil being governed automatically by a positive and simple adjustment on the oil reservoir interconnected with the accelerator control rod. The reservoir is attached to the side of the cylinders. The ignition is jump spark, the principal current being furnished by a Bosch high tension magneto. The spark is fixed, eliminating the control lever generally used. The cooling system consists of a Mercedes type of radiator with vertical tubes and straight fins, in connection with the thermo-syphon system of circulation. The clutch is of the multiple disc type in which ten plates are used, enclosed and running in oil. An improvement in the clutch this year is that tension adjusting plugs are used on the clutch springs.

The wheel base is 110 inches. The frame is pressed channel steel and has four cross members. Selective sliding gear transmission is used, giving two speeds forward and one reverse, the gears being contained in the

30 by 3 inches in front and 31 by  $3\frac{1}{2}$  inches in the rear. Two pedals constitute the clutch and service brake control, while the emergency brakes are operated by a hand lever at the driver's right. The gear shifting lever is conveniently placed at the side. The throttle lever is mounted on the steering column under the wheel, and interconnected with a foot accelerator pedal. Steering is done by means of a 15-inch wheel operating through a rack and pinion type of gear.

The Hupp company will not only continue to produce the "little Hupp" in runabout form, but will also supply it with torpedo and coupe bodies.

**Putting Soaps to the "Litmus Test."**

Rather a fanciful, but no less exact, way of investigating the properties of any soap that is recommended for automobile washing is to apply to it the chemist's "litmus test." A strong solution of the soap is prepared and into it are dipped bits of red and blue litmus paper, such as may be obtained from any druggist. If the soap is either acid or alkaline in its properties, the colors of the test papers will be changed, according to circumstances. As both acids and alkalis are calculated to injure the varnish of the car, a strong soapsuds which responds readily to such a test may be considered unsafe to use.

**"LAG" OF THE BATTERY SYSTEM**

**Why Engine Speeds Up when Shifted to Magneto—"Averaging the Advance" Cause of Popular Supposition.**

Frequently when changing over from battery to magneto ignition it is observed that the speed of the engine increases, and the effect commonly is ascribed to the more rapid ignition resulting from the greater intensity of spark which the magneto is supposed to produce. Generally speaking, however, such is not the case, the effect being due rather to the more accurate timing of the magneto and to the more nearly absolute synchronism of the sparks in various cylinders which it ensures. Even admitting that it is much easier to secure synchronism in sparking with the magneto than with the battery, it may be said that in most instances the increased engine speed observed in such occasions results not from any structural or functional advantage on the part of the magneto but from lack of skill on the part of the operator in not adjusting the battery spark to the best timing point.

As is generally understood by those who have made a close study of the subject, a certain very minute period of time is required to accomplish the "saturation", of the windings of either a spark coil or a magneto armature. In the case of the coil, however, it frequently happens that this period is greater than it is in the ordinary magneto, while a further element of delay results from the inertia of the vibrators. These effects combine to cause a delay in response after the primary contact is made at the timer; and that delay may be compensated for by the skilled driver by advancing the spark almost to the point at which the explosive impulses will occur before the pistons begin to descend, and so cause the engine to knock.

Still another cause of possible lag on the part of the battery system is that with improper adjustment the response of the various vibrators will vary. Wear on the contact points, pitting of their surfaces, differences in the temper of the springs and faulty contacts at the different points in the timer afford other opportunities for irregular sparking. And irregular sparking involves delayed ignition in one or more cylinders, with a possibility that when the spark is advanced to its maximum the more advanced sparks may cause very slight back pressures in the affected cylinders and so cut down the effective turning moment of the engine.

Where but a single coil is used with a high tension distributor in addition to the primary timer, of course, the difficulty due to irregularities in the setting of a number of vibrators is eliminated. But this system

also possesses certain possibilities of irregular action if the timer and distributor are not kept up to their full efficiency.

The average automobile driver is not accustomed to "following" the acceleration of his motor any too closely by advancing the spark as the speed increases. As a matter of fact, very many drivers adopt two or three arbitrary positions for the spark lever and shift it from one to another as the speed of the engine varies, without taking the trouble to maintain an accurate adjustment at all times. It is this habit of "averaging the advance," so to speak, that may be held to account in most instances for the popular supposition that the magneto spark is the more effective of the two; that is, supposing that both magneto and battery systems are properly adapted to the engine and that they are in equally good condition.

Perhaps a more general reason for the noticeable speeding up of the engine at the instant the spark is shifted arises from the fact that the battery is very commonly used at the present time for starting on the spark, and for little else. Under such circumstances it is customary to throw over the controlling switch almost immediately after the engine has taken up its cycle on the battery spark. That being the case, it is evident that during the brief instant the battery system has been in use the timer has not been advanced, although the engine, running without load, has increased in speed up to the full limit of its retarded spark. The magneto, on the other hand, its timing being to a large extent automatic, gives a much earlier spark. Thus the effect in such cases is much the same as though the switch had not been touched, but instead the timing lever had been suddenly yanked part way around on its sector. If, incidentally, the batteries happen to be a trifle weak or the vibrators dusty from disuse, the effect will be rendered all the more noticeable.

#### Lubrication that Saves Gearsets.

One portion of the average gearset that frequently receives far less careful attention than it deserves is the thimble bearing at the forward end of the driven shaft. Because of its nature this bearing is difficult to inspect without dismantling the entire transmission, while it is equally difficult to lubricate, especially when not of the anti-friction variety. To prevent the bearing from cutting and so causing the shaft to get out of line and disturb the alignment of the gears, it is important that the ducts through which it is lubricated be kept clean at all times and that a proper amount of oil be fed to it. Unless this precaution is taken the cutting of the bearing and the surrounding bushing, which is likely to ensue, is apt to shorten the life of the entire gearset by not a few hundred of miles. Its effect, of course, first becomes noticeable when the gears fail to mesh properly.

## PHOTOGRAPHING FACTORY PARTS

**Not the Simple Process Generally Supposed to Be the Case—Apparatus That Is Necessary.**

Few people who view photographs of collections of automobile parts and the like have any idea of the complicated work which is necessary before the actual "picture-taking" is commenced. As it naturally is extremely difficult to get perfect light and correct grouping of parts and tools, if the articles are suspended vertically, or fastened upon a vertically placed board, inventive genius has produced ap-



pliances which render this difficult proceeding quite easy and simple.

In the accompanying picture is shown the solution of the problem as carried out in the E-M-F Co.'s factory in Detroit, Mich. A high scaffold has been erected upon the top of which a camera is fastened in such a way that its "eye" points vertically downward. The height of the structure being invariable, it therefore is possible to obtain by careful experimentation a focus arrangement which renders every article in the picture as sharp and clear as the art of modern photography permits. Once such a focus is fixed it may be measured and noted down for future reference, giving in advance perfect assurance of the picture's "coming out well." The groups of parts and tools to be photographed are placed on a tray covered with white cloth; each part is numbered and a clerk jots down the names as the tray is being "snapped."

A great advantage of this style of pho-

tographing is the almost complete absence of disturbing shadows which may be obtained thereby. Choosing a day of diffused light, an object looked at from above presents no shadow at all, while the same object viewed from the horizontal has shadows below each raised portion. The same result may be obtained by throwing powerful artificial light directly horizontally upon a vertically hung board, but there the fastenings of the various objects always are more or less in evidence. When the tools or parts are delicate and thin such interference is often very disturbing.

Another novelty in the photographic establishment of the E-M-F Co., but one which is not shown in the picture, is the "snapping" of a complete chassis. This usually is done with the assistance of a block and tackle which lifts the car bodily off the floor into a "look pleasant" attitude of perpendicularity.

The scene depicted was occasioned by a recent revision of the parts catalogs, a bridge contiguous to the company's photograph gallery being employed for the operations.

#### The Lean Spark and the Fat One.

There is a general tendency to term an insufficient spark a lean spark, but not always with due reason. A thin spark, giving but little heat will cause a loss of power to a motor, not because it does not ignite the mixtures, but because the different cylinders frequently miss. The idea is also prevalent that a thin spark requires more gas than a fatter or hotter spark, but as the mixture either explodes or does not explode, the size or heat of the spark has nothing to do with the explosion force of the gas. The function of the spark is to ignite a minute part of the gas, the rapidity with which this combustion takes place depending entirely upon the gas itself and not at all upon the spark. A hot fat spark, however, is the best one, and simply because it is more liable to explode poor mixtures with more regularity.

#### Purposes Served by Talcum Powder.

That the French chalk or talcum powder dusted between the inner tube of a tire and its casing is intended to act as a lubricant between the adjacent surfaces generally is understood. But that it also serves a useful purpose in preventing the tire from heating unduly perhaps is not so widely appreciated. As a matter of fact, however, this is the case. For unless provision is made to cause the surfaces of the tube and casing to work together smoothly the friction created by the great pressure to which they are subjected will tend to generate a very considerable amount of heat. This heat, of course, added to that caused by the churning of the compressed air in the tube, sometimes may cause the air to expand sufficiently to overstrain the tube and result in a blow-out.

**VELIE WITH DETACHABLE DOORS**

**Moline Manufacturers Permit Owners to Consult Their Convenience—Engine and Ignition are Improved.**

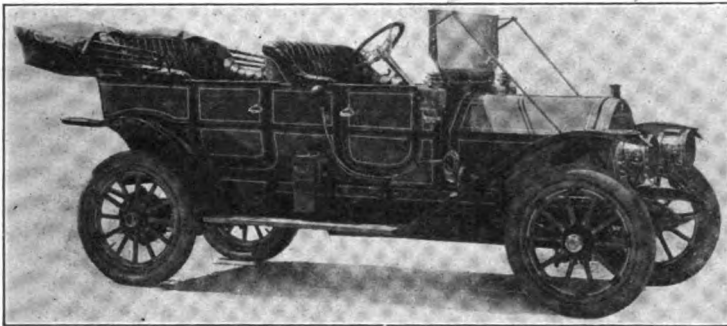
While the line of 1911 Velie cars, specifications of which just have been issued by the Velie Motor Vehicle Co., Moline, Ill., will include examples of the new closed-front type, these models will be unusual in that the front doors will be detachable. This feature will appeal to many buyers who will desire to remove the front doors

five passenger landaulet, semi enclosed; a limousine and a coupe. The landaulet seats five passengers in the rear compartment, as does also the limousine. The bodies of the latter two cars are interchangeable with that of the touring car.

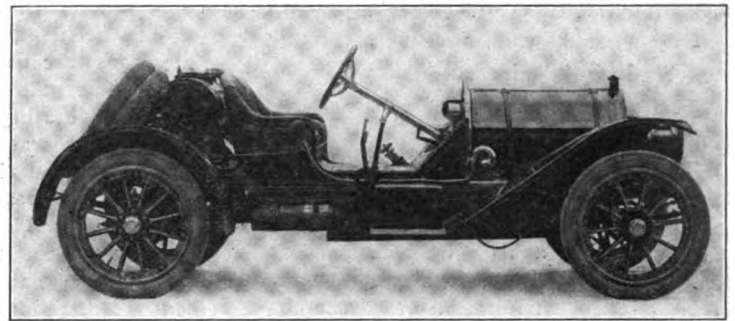
All trimmings on these 1911 bodies are of heavy nickel instead of brass, although brass may be had if so ordered. The standard combinations of color are Velie blue with fine white line stripe, with Velie gray wheels, magenta lake striped in 20th century red with gear to match; Velie gray throughout with one-fourth inch stripe of white edged with fine line of black or Velie red throughout.

Lubrication is accomplished by means of a gear pump located on the bottom of the oil reservoir. All moving parts and bearings being provided with compression cups or spring oilers. The clutch is of the dry disc type with three engaging plates, but cork inserts have been added to the center disc and the throwout yoke is provided with an internal oil groove to allow more generous lubrication. Slight changes also have been made in the starting crank and in the valve for controlling the admission of the gasoline.

The Brown-Lipe selective sliding gear transmission is used, with three speeds forward and one reverse, and mounted on Tim-



VELIE TOURING CAR WITH CLOSED FRONT



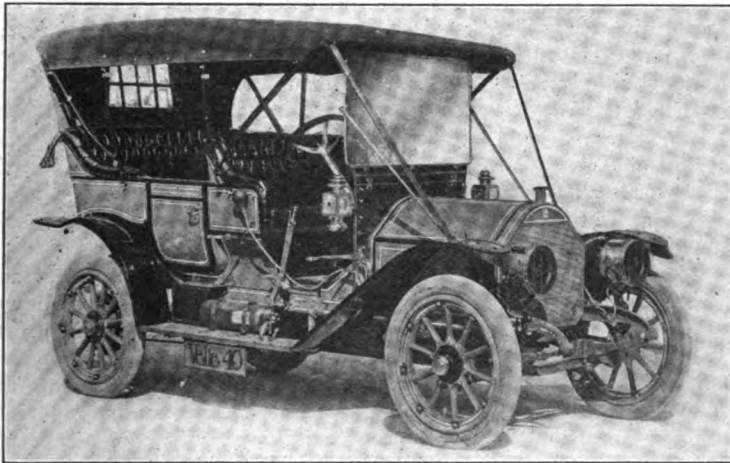
THE NEW SEMI-RACING ROADSTER

during the warm days of summer, but who may have use for them when the wind and chill of winter makes them desirable. The design of the car makes it appear equally well with or without the doors.

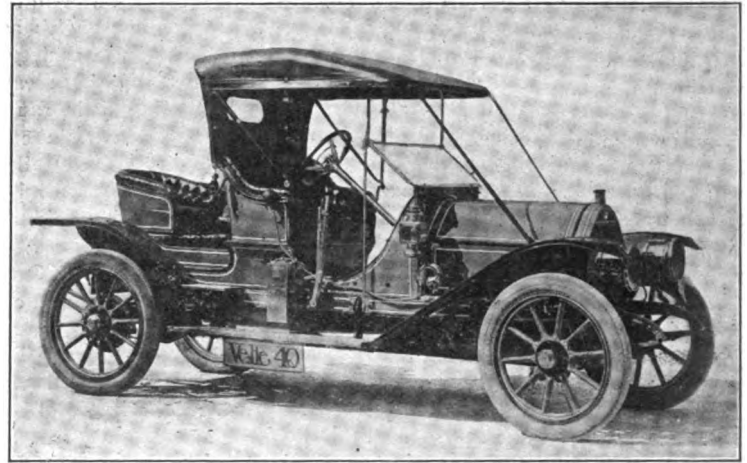
The new models which have been added to the Velie line are a five passenger touring car with detachable front doors, a four passenger close coupled car with detachable

The Velie motor as heretofore is of the L type, of four cylinders,  $4\frac{1}{2}$  by  $5\frac{1}{4}$  inches, cast in pairs. The crank shaft is offset three-eighths of an inch. The principal change effected in the engine is that the mushroom style of tappet has been discarded for a new tappet of roller design and of heavy construction. A cam of somewhat different design replaces the old one.

ken short series roller bearings. The front axle is an I-beam section drop forged from solid ingot on Timken roller bearings. The rear axle is the Timken full floating with pressed steel housing and double radius rod construction, and the differential is a Brown-Lipe bevel gear on Timken roller bearings. The gears in the transmission are  $3\frac{1}{2}$  per cent. nickel steel, and those in



TOURING CAR WITH OPEN-FRONT BODY



NEW VELIE THREE PASSENGER ROADSTER

front doors, and a two passenger roadster of the semi-racing type, with low seats, rakish steering column, and an oblong gasoline tank mounted behind the seats. This latter model is designed specially for speed and is capable of at least 65 miles an hour. The older models are a five passenger touring car; a two, three or four passenger roadster; a four passenger toy tonneau; a

The result of this change is a more quietly running motor, which the company claims to be practically noiseless without the sacrifice of any power. The ignition system has been changed on the secondary or battery side, the Atwater-Kent uni-sparker replacing the 4-unit coil and commutator. The principal current, however, is supplied as heretofore by a Splitdorf magneto.

the differential are chrome nickel steel. In front the springs are semi-elliptic, 38 by 2 inches, and in the rear three-quarters scroll, 46 by 2 inches. The foot brakes are double contracting, and the hand, or emergency, are double expanding. The wheel base of all models is 115 inches, and the wheels, 34 by 4 inches, are provided with Hartford quick-detachable rims.

## SINS OF THE "EXPERT DRIVER"

His Species Blamed for Not a Few Existing Evils—Some of the Damage that He Does.

Perhaps one of the most exasperating pests in automobilism is that big little man—the "expert driver." In speaking of him, says a contemporary, we do not think of the painstaking mechanic who by dint of study and experience gained in actual practice familiarizes himself with motor cars until he is able to obtain from his charge the maximum service with a minimum necessity for repair and adjustment. Him we would call the expert motorist—but we have in mind the fellow who is an expert "driver" and nothing else. It is almost needless to say that since the exhibition of stunts in driving is apt to prove an expensive habit the expert driver rarely is found among the owners. Usually he has graduated from the washstand in a garage, while sometimes he is a specimen of the so-called natural-born mechanic, a species that neither modern mechanical progress nor scientific learning seems to have been able to exterminate.

It is the expert driver who is largely responsible for the animosity of the mere pedestrian against the motorist; it is he who scares elderly ladies into hysterics by bearing down upon them with a rush, only to clap on his brakes with a bang and bring his car to a stop half an inch from the pedestrian's shin.

Not infrequently the expert driver is a real expert as far as his exhibitions pass without the infliction of harm on others or on himself, but in every case he is a costly acquisition. If you want to watch him, stand in front of a busy garage for a little while and you will have ample opportunity to observe his doings. He will come out of the garage at full tilt, clear the opposite curb by ripping the steering wheel around with all his might, and disappear around the next corner in similar fashion. When he returns he will tear down the block at a speed of fifty miles an hour, throw on the brakes some eight or ten feet from the stopping point and bring the car to a stop almost within its own length—which of course looks very clever—to the driver—and costs money for repairs and excessive deterioration—to the owner.

This sort of driver is the one to whom an open muffler is music in the ears; who imagines himself a miniature Oldfield who could have beaten every record had he been given the chance.

As to climbing a hill on high gear every time, trust to your expert driver to do it. Very often he will do it, too, even if the motor should knock its own head off—in utter oblivion of the fact that low gear

ratios are made just for hill climbing. If you don't drive your car yourself, beware of the expert driver, or at least nip his ambitions early in the proceedings.

### De Palma's Daring Stunt on Cycle Track.

Ralph De Palma made three laps over the Clifton (N. J.) Stadium bicycle track last Sunday, with his "Cyclone" Fiat, a performance that crowded quite a few thrills into 43¾ seconds. The distance was half a mile. De Palma intended to go the mile, but the track managers became frightened and ordered him to stop. The Stadium is only one-sixth of a mile in circumference, being banked 45 degrees at the turns. Racing drivers have long contended that a car could not be driven over it at high speed without accident, while a slow pace was dangerous because of the steep banking. DePalma went six laps by way of trial—the track vibrating a good deal. The shaking, however, was as nothing to that which followed, when he opened wide. The boards, too, appeared to have rattled loose as he passed. The car skidded twice when it was near the top of the turns, which caused the management to end the experiment. DePalma complained of nausea as he ended. At times he said the front wheels were in the air. It is doubtful if another test of the sort will be permitted by the track owners.

### "Society Tourists" Elect Their Governors.

One of the oddest automobile organizations to be found the world over is the Motor Car Touring Society of New York, which held its annual dinner, last week, at the Harvard Club. The dinner table was decorated with miniature automobiles and aeroplanes, while the walls of the rooms were hung with automobile pictures. The seal of the society has been reproduced by most of the members for stick pins. A cunning little run will be held to Belmont Park, during the aviation meet, and next month a dreadfully long tour to Tuxedo, 30 mile away, will be undertaken. The governors chosen for the year at last week's meeting were A. Eugene Gallatin, Percy R. Pyne, 2d, Orme Wilson, Malcolm D. Sloane and Francis L. V. Hoppin.

### Baseball Player Will Surprise Mother.

The baseball season having ended, Tris Speaker, who played for the Boston American League team, started on Monday last for his home in Hubbard, Tex., 2,000 miles away. Unlike other players who are homeward bound, Speaker is making the journey in an automobile, a Velie, and is carrying a "message," sealed in a baseball, from the mayor of Boston to the governor of Texas. According to the story, Speaker will surprise his mother by making her a present of the Velie when he arrives in Hubbard—and if Mrs. Speaker does not read the newspapers she really may be very much surprised.

## CITY'S RIGHTS ARE CHALLENGED

Old Question of Municipality vs. State Arises in Indiana—Revocation of Licenses Involved.

The old quarrel between the administration officials of city and state, over their respective rights and privileges again has broken out, this time in Indiana. The question of whether or not the magistrate sitting in a municipal court has the right to revoke an automobile driver's license, which is issued by the state, has stirred up something of a howdy-do in Indianapolis, and Judge Remster, of the Circuit Court, is hearing arguments in a test case which at present is before him. Attorney Gaylord R. Hawkins, arguing on a demurrer before Judge Remster, said that the city ordinance which grants such power and authority is contrary to the laws of Indiana—that full control of speed limit and the regulation of automobiles and automobile drivers are vested in the state.

Judge Remster took the case under advisement and in the meantime Merle N. A. Walker, city attorney, will prepare a brief on the question and submit it to the court. The case probably will be decided during the present week.

Albert Ferguson, colored, driver for William M. Jillson, was arrested July 21st, and on a plea of guilty to speeding a machine, was fined \$10 and costs in police court. Judge Collins revoked his license. No appeal was taken in this case but fine and costs were paid. The driver prepared to "take his medicine," bitter as it was, and sought new fields of labor.

Later it was decided to make a test case out of it and Gaylord R. Hawkins was driven to police headquarters September 24th by Ferguson, where the driver was arrested for driving without a license. Entering a plea of not guilty he was tried and fined \$1 and costs. The case was appealed to the circuit court.

In the demurrer upon which Mr. Hawkins argued, it is alleged there is no power vested in the board of public safety to grant licenses; that the state has taken control of the regulation of speed; that the ordinance passed by the common council is void because it violates Sec. 23 of the bill of rights in granting privilege and immunity to one citizen in preference to others, as the board of safety determines to whom the licenses shall be granted; that the city has no power to punish for violations as it is in the province of the state; that there is no provision in the charter of Indianapolis which grants the right of the council to revoke licenses held by owners and drivers of automobiles and that the council has no power to vest the police judge with such power.



## Demonstrations; Helpful and Other Kinds

How few salesmen or drivers are capable of making good demonstration—one that induces first, confidence, and then enthusiasm and finally brings the "prospect" up to the buying point!

Many a sale is lost by a poor—a badly managed—demonstration. The ideal salesman is the one who makes his own demonstration instead of entrusting the customer for this critical test to a chauffeur, declares E. LeRoy Pelletier in the Co-Operator.

Only he who possesses the happy faculty of talking tactfully can make a thoroughly satisfactory demonstration. He can "suit the action to the word—the word to the action," in such a way that the car becomes a thing of life rather than a mere machine, seeming to obey his thought almost before the command is given.

Have you ever noticed how tense are your nerves when you watch an animal trainer putting his pets through their paces?

"Fido! roll over," he commands, and you wonder if Fido will roll over or sit up, instead.

The strain is as hard on you as on the trainer—more so, for by previous experience he knows the propensities of the brute.

I had an experience with a chauffeur-demonstrator once that always makes me recall a balky trick dog or a sulky trained seal.

I was unfamiliar with this particular car, so let a driver from the garage take the wheel. I sat in the tonneau with the "prospect." As we started out I asked him to note the smoothness with which the gears meshed—and my voice was drowned in a grating, crashing noise that made us both think the entire transmission had gone to smithereens. Catching another breath and trying to look cheerful, I called his attention to the smoothness of the clutch—when the driver bawled out "This infernal clutch is slipping—it's no good, anyway."

The sale had gone glimmering, of course, but I still smiled a set smile and as we approached a grade—less than two per cent.—the prospect asked, "How is she on hills?" "Great," I answered blithely, and just then the motor began to labor, then to buck and then the driver shifted back to second, "Cylinder full of carbon," he announced. It wasn't that—it was simply a bad carburettor adjustment which any salesman-driver would have seen to before starting. I bought the prospect a dinner to cover my chagrin—and directed him to my "dearest enemy" from whom he bought a car.

The trouble with most drivers—and all

mechanics—is that they are more solicitous of your opinion of them as a driver than of the performance of the car.

"If I had a magneto on this 'old boat,' I'd show you," said one the other day. "But the car isn't sold with a magneto," I replied, hoping to shut his trap. Vain hope!

"Naw! and there's a lot of other things it needs, too—only those wise guys up at the factory won't listen to some one what knows. I told them—" and you just couldn't keep him still.

In the course of a very good ride he told all the weaknesses of the car—or what he in the fullness of his ignorance considered faults—and convinced the prospect that the only reason he didn't win the Vanderbilt Cup race was because the house wouldn't give him a mount.

Now you are not selling drivers—cars is your line.

The object of a demonstration is not to show what a skilful driver you are—nobody gives a hang about that except the boss, and he knows and pays you for it.

What the customer wants to know is not what an expert like you can do with the car but what an inexperienced man like himself can get out of it. The more expert you are, the less recommendation for the car—can't you see that?

But the greatest weakness of the demonstration entrusted to a mere driver, instead of being made by the salesman himself, lies in the fact, patent to all good salesmen—that there's only one "psychological moment" in the entire course of a negotiation deal.

How often have you sent a prospective customer out with a driver feeling sure only a satisfactory ride was necessary to close the sale.

The driver came back alone. Oh yes, Mr. Jones was delighted with the ride—and his wife just raved over it—but—well, he said he would drop in tomorrow. Next time you saw Jones he was riding in another demonstrator's car, and a week later you learned he bought a rival machine.

Now there had been a psychological moment during that ride—a time when, flushed with enthusiasm, Jones would have said, "We'll take the car," and he would have stuck to it, once committed, even if the salesman hadn't sense enough to pull up at the first cafe or road house and draw up a contract, get his earnest money while the delighted lady sipped a cool lemonade.

But the driver did not know it. More than likely, having pleased them with some simple stunt he felt so elated he attempted

something almost impossible—and "fell down."

More sales are lost by demonstrations that frighten the customer than in any other way. The average driver prides himself on being able to burn up the road—forgetting that any fool can open the throttle and hold the car in the road at any speed, whereas it requires real skill to give the passengers a comfortable, satisfying, pleasurable ride. It is safe to say that any driver who violates the speed laws is a poor demonstrator. No man enjoys a fast ride in a car he is not accustomed to or with a driver he doesn't know. And it is not due to his cowardice, either. The man who is the most daring driver when holding the wheel himself is the most nervous when sitting in a car driven by another. Your own experience will tell you that.

Any car made nowadays will go fast enough to satisfy any but a speed maniac—the task is to prove that it will afford a comfortable ride over any road, a safe one in crowded traffic.

"When any man drives so fast that I begin to watch the car and the road I cease to enjoy motoring," remarked a lady in the writer's hearing. She had told the whole story. Nine out of ten people prefer loafing along at a fifteen or twenty mile pace, enjoying the scenery, breathing clear air and sitting restfully, to scorching over a dusty road and tiring every muscle by the effort to remain in the seat.

The demonstrator who realizes this will seldom bring back an excuse when he should bring a check.

The writer had a couple of hours to spend between trains in a Western town, not long ago. I improved the time by calling on our dealer there. He greeted us more cordially than such a busy man could afford to do, and insisted on showing us as much of the town as could be encompassed in the two hours I had at my disposal.

Followed a model demonstration—the one that inspired this article:

Leisurely he went about starting the motor. Didn't let it race and roar. Gently drove out of the garage—didn't drop in the clutch and make the curb at a jump. Didn't give us a crick in the neck when he engaged the high and clutch—it was as sweet as an electric.

Instead of making for the boulevard he drove leisurely down and through the most congested part of the city over mad pieces of pavement and trolley tracks where the bricks had worn away leaving a six inch chasm each side. Our man didn't mention

it; talked entertainingly of other things; but you marveled at the easy way the car glided over those bad spots. You couldn't help anticipating a jolt and were pleasantly surprised when you didn't get one.

He didn't try to drive pell-mell through the crowded street—it was 5:30 p. m.—or even to keep his high in all the time; on occasion he dropped back to second, even first. Always he conceded to pedestrians the right of way, and one realized that a man can drive a motor car and still be a gentleman—a fact some pedestrians have good cause to doubt.

Don't you know that shocks or inconvenience imposed on others takes half the pleasure and zest out of an automobile ride? I always feel as if every one not so fortunate as to own a car is entitled to sympathy and the lucky fellow in one can never be courteous enough to make up for this longing void in his less fortunate brother's heart. Our friend seemed to feel that way—he was getting so much pleasure out of that car he felt generous toward all the world and he asked for only enough road space to skip on unobtrusively.

One didn't notice that the speed had gradually accelerated as the "business section" was left behind, for our demonstrator was saying: "There, in that big house with the gray stone corners lives Booth Tarkington; here is the home of J. Whitcomb Riley; that modest looking house is where President Harrison lived and died. Isn't that a fine place? It is the home of Ed. Van Camp—the baked-beans man. Millionaire? Oh yes. Isn't it strange how one man will see an opportunity in such a commonplace commodity"—etc., etc.

You didn't realize that you were going along at a clip—twenty miles an hour perhaps—but sub-consciously you were saying: "Isn't it wonderful what a lot of ground one can cover in an hour with an automobile? Why! We've driven clear around this big, beautiful city."

Turning a corner all at once we saw the open country before us and the most inviting stretch of road, perhaps a mile straight-away. Gradually the driver opened her up. It was beautiful the way she gathered speed, making you hold tight to your hat, yet impressing you all the time that she still had lots of reserve power. 30, 40, 45, 48, 49,—it increases slowly when you get up there—50 miles the speedometer registered by the time we had used up our stretch of road. No, he didn't jam the brakes to stop, nor even close the throttle quickly. Measuring the distance with admirable accuracy he slowed down gradually without a jerk or a jar on the passengers or a strain on the car or the tires.

Turning about, did he again open her up for the return trip? Not at all. He was too wise to incur an anti-climax—too clever a salesman to spoil that first impression by a repetition of the stunt. He left you with a feeling that the car would go a mile a

minute or more—but he didn't try to prove it. Slowly we retraced our way and turned into the boulevard which winds gracefully along the river side.

He talked little of the car—none of his driving. But when he did speak—when he did call attention to the flexibility of the motor, the simplicity of control, the certainty of the brakes, he suited the action to the word—and you can bet your life he knew to an ounce just what she would do—to a hair's breadth how she would respond to throttle or brake. Any one with his hands on the wheel can feel that—and he can fool the best driver in the car who hasn't. That's where the salesman-demonstrator has the advantage of his fellows who can talk but not drive.

Is it any wonder such men can sell cars—know no hard times? Why! when we got back I was so infatuated with that car I'd have bought it on the spot if I thought the house would stand for the item in the expense account.

#### When Chauffeurs Want a Night Off.

The ways of the "Heathen Chinee" long since have ceased to be peculiar, for the modern chauffeur can teach him a few dark tricks such as even he never dreamed of. Instances of deep dyed duplicity multiply as the methods of lusty members of that calling are brought to mind. But for elements of both novelty and simplicity excelling such crude jests as result in mysteriously "leaking" tire valves and fuel tank drain cocks that "work" open unexpectedly, the recent experience of a New York business man may be taken as breaking the record.

As the "subject" relates the incident, he left town one morning to visit a friend living some 40 miles or so out in the country. Just after luncheon the chauffeur appeared on the scene with a mildly apologetic air. Somehow, he explained, the tail lamp had been lost off the car in coming out from the garage. That, of course, would necessitate returning before dark, instead of in the cool of the evening, as had been planned.

"It just happened that at this moment there flashed across my mind a remembrance of a somewhat similar incident of the not too dim and distant past that made me hesitate before replying," said the motorist in telling the story afterward. "It had happened then that my number plate had dropped off. There was no accounting for its loss at the time, but later, when it was discovered under the carpet on the tonneau floor, I began to see a great light.

"With this circumstance in mind, therefore, I waited a moment, as if in deep thought. Then, as if on inspiration, I exclaimed, 'I'll tell you what we'll do! We'll stay right here all night and go back in the morning with a clear day before us.'

"The chauffeur did not answer for a moment, but his face was something of a study as he turned away. I had a feeling

that I should see him again before long, and I was not mistaken. Not over a half hour later he came tramping up the drive, dusty and triumphant, carrying the tail lamp that had been 'lost.' He had found it in a clump of bushes by the roadside a couple of miles back, he said, and his face glowed with virtuous pride as he exhibited the reward of his search.

"By way of recompense, as something seemed to be expected of me, I murmured a few words about trying to get off even earlier than originally had been planned. But somehow," he concluded with a sly twinkle, "it was almost ten o'clock at night before we finally got on the road, despite my very best efforts to hurry away."

#### Why Oklahoma Objects to Horn Tooting.

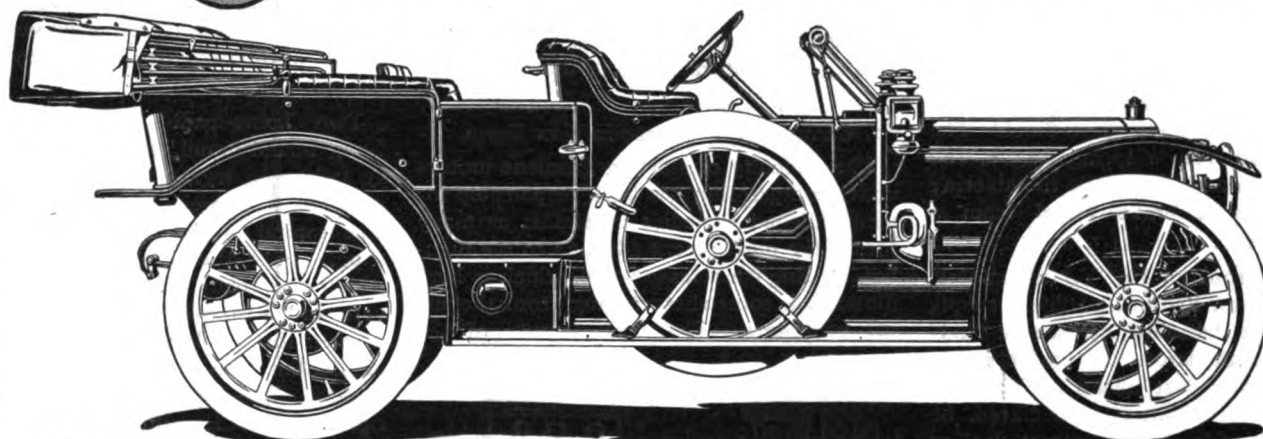
Out Oklahoma way they still grade automobiles as cattle of a more or less objectionable class. The Guthrie Capital says: "We have been requested to touch lightly upon the subject of the automobile. We would rather do that than have the automobile touch lightly or any other way upon us. The busy streets of this city have always been hard enough to navigate, heaven knows, but nowadays with the automobile added to the trolley cars, pedestrianism has degenerated into a mere succession of frenzied leaps and stops, akin to that of a startled fawn. Shakespeare, who was ahead of date said: 'No man means evil, but the devil, and we shall know him by his horns.' This eternal horn blowing is a nerve destroying crime. The smaller the car, the bigger the volume of its horn. To hear one of these little sheetiron washboilers, with a one horsepower engine, a 12 horsepower horn and a 20-mule driver, coming down the street, you'd suppose that Gabriel with his trump, had broken loose at last, and when you look up expecting to see a trump you see nothing but a two-spot. There ought to be an ordinance passed putting 'such cattle' out of business."

#### Game Without Guns or Ammunition.

The possibilities of the motor car as an adjunct of the fall hunting season are just beginning to be realized. A month ago news despatches from Bangor, Me., told how a bear had been impaled upon the starting crank of a touring car while on a woodland journey. Two weeks later a New Jersey bull charged upon a car of gory hue and ended as dressed beef. Last week at Port Jervis, N. Y., a party of New Yorkers ran into a flock of partridges and furnished all hands with a game dinner. Anson B. Cole, of 63 Wall street, Manhattan, who ate some of the birds, vouches for the authenticity of the story. He says two partridges, confused by the bright searchlights, broke the wind shield, landing dead in his lap. Unfortunately, the feathers had to be picked off, and no toast nor tea came along with them. Two others landed in the rear of the car, one bird for each passenger.

# Rambler

## 1911 Cars Now Ready



Rambler  
Sixty-five

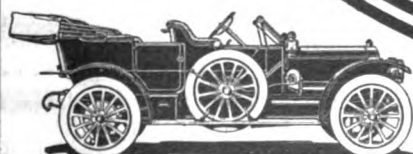
**T**HE 1911 Rambler is now ready and orders are being taken for early deliveries of all styles. The line includes landaulets, coupes, limousines, town cars, roadsters, toy tonneaus and five and seven-passenger touring cars with detachable fore doors. Details and construction alike for all: two sizes, forty-five and thirty-four horsepower. Forty-inch wheels on all seven-passenger open cars, thirty-six-inch wheels on all others. Seven-eighths elliptic springs and shock absorbers produce gratifying comfort. The offset crank shaft and straight-line drive enable you to travel through sand and up grades on high gear as slowly as ten miles an hour. That there is no need to rush the hard pulls is one of the charms of driving a Rambler.

*You may have a copy of the special  
number of the Rambler Magazine  
if you make request immediately*

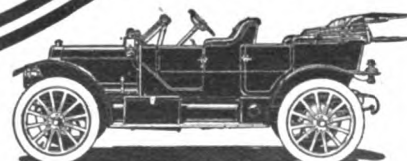
**The Thomas B. Jeffery Company**

Main Office and Factory, Kenosha, Wisconsin  
Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco

Rambler  
Sixty-four



Rambler  
Sixty-three



## Stray Sparks

No nice green grass is to be allowed to grow under the feet of the Quaker City Motor Club in preparing for the next Fairmount Park races. It has been decided to ask for a sanction for October 14, 1911.

Tony Ocklinda, a Nebraska farmer, has a genuine home-made automobile. He surprised residents of Hastings by driving his creation into town a few days since. The body was taken from a spring wagon, and the wheels from a binder, while the steering mechanism was a brake wheel from a freight car.

A veteran Brooklyn (N. Y.) automobile dealer was out on Bedford avenue a couple of Sundays ago, wheeling his newest "kid" in a 1911 perambulator. Several children rounded a corner just ahead of him and through force of habit, it is declared, he reached to the side of the go-cart, feeling for the horn bulb.

Although Dr. O. C. Jackson, a Jamaica, L. I., veterinarian, has discarded the horse as a carrier in favor of a motor car, he still persists in carrying a long whip on the vehicle. Whether the goad is carried as a reminder of old times or is still used for application to towing animals is a question that keeps hundreds of people guessing.

Friends of Scott Mylott, mechanic with Al. Mitchell in one of the Chadwick cars at the recent Fairmount Park, Philadelphia, collected \$18 to put flowers on his grave when they heard he had been killed. A few hours after they learned he was alive, which cheered them so much that they insisted he should have the posies anyhow.

Georgia's new law requiring state registration of all motor vehicles has brought some disappointment in its train. It was generally supposed that there were between 7,500 and 10,000 cars in the state, but the registration figures prove that there are only 3,800 in use. Of the larger cities, Savannah has the greatest number, 701. Atlanta has 600.

Customs authorities in their attempt to catch smugglers are resorting to all sorts of odd and unwarranted schemes. A few days ago an automobile was almost torn apart at Boston, when it arrived on a Cunard liner, simply because it was guessed that the upholstery or mechanism concealed dutiable goods. Nothing was found, however. The car belonged to Mrs. H. N. Slater, who as a mill owner is one of the wealthiest women in the world.

Circular letters have been sent to labor organizations throughout the United States and Canada asking for subscriptions to finance the recently-incorporated Columbus Motor Transportation Co. to compete with

the Columbus Railway and Light Co. The scheme is to increase to 50 in number the 12 large passenger trucks that have been paralleling several of the car lines since the traction strike began in that Ohio city last spring, and with which the strikers hope to put the traction magnates out of business.

Bleeding Kansas has had another wound since the Jewell county superintendent of instruction made his report. Jewell is a leading agricultural section, but the super-

### Compression Release in New Form.

The difficulty of starting gasoline motors under compression has been responsible for many alleged remedies in almost as many forms, the most recent addition to the number, an English release valve, which is here illustrated, somewhat varying from the usual procedure. The main feature of the

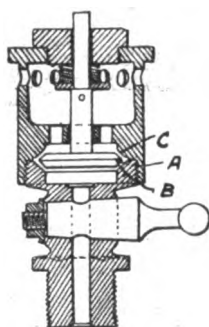


Fig. 1.

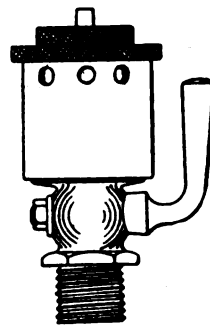


Fig. 2.

device is a valve, A, adapted to make a tight joint at either of the two seatings, B and C. When the cock is opened and the motor turned over by hand the valve is lifted into the position shown in Fig. 1, and the compression reduced from four to six pounds per square inch, making it easy to crank even a very large motor. When a charge explodes the rush of compressed gas overcomes the pressure of the spring around the valve step below the cap, and causes the valve to be forced against the upper seating, thus preventing all further escape of gas. The valve is non-operative during the admission stroke, so there is no reduction in the volume of the charge drawn in, nor any weakening of the suction on the needle valve of the carburetter. When the engine is started the cocks are closed and the release valve is entirely out of action.

intendent states that several schools have been closed because scholars are lacking and calls attention to the startling decrease in the number of children. He sums up the indictment this wise: "American farmers are living on land worth \$100 an acre, selling dollar wheat and spending much of their time riding in automobiles, leaving the task of raising families to foreigners."

One of the planks of the Chicago Social-

istic party calls for government control of automobiles and automobile riders. The "demand" of the framers is "that street crossings shall become highways for the common people who have been shuttled lightning-like by death bearing machines; that mufflers shall be kept closed and that the rackets and accidents caused by automobiles shall cease." Other sections in the epoch-making platform demand the feeding of school children and insurance against illness, invalidity, loss of employment and old age.

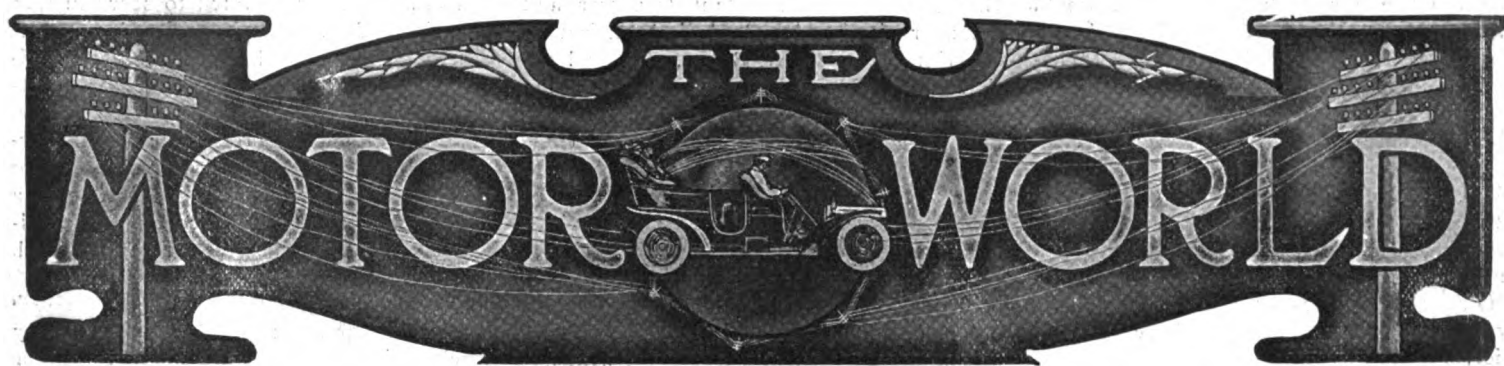
Two home-made highwaymen, of the Long Island brand, last week made a clumsy failure in trying to hold up a party of motorists between Sayville and Bayport. The capital of the bandits consisted of a supply of old wire nails and tacks with which the roads were strewn, two revolvers and a couple of masks. The victim marked for a hold-up was D. P. Hamilton, Manhattan, who had a crew of women folks aboard. The nails got in their work all right, but as Hamilton had a loaded revolver in his overcoat pocket, he soon had the drop on the offenders.

Attachment papers were served last week at Ponca City, Oklahoma, on the Auburn car, which is being used as a pathfinder for a reliability run in and about Kansas which is to be conducted by a Kansas magazine. The passengers, upon reaching Ponca, saw a man gesticulating wildly to them. Naturally they supposed it was a welcome from a hotel proprietor, or somebody of that ilk, but he proved nothing of the sort. Instead, he was a sheriff. The trouble arose over an old agency contract between the Ponca Automobile Co. and the Arnold Motor Car Co. of Wichita, which owned the pathfinder. As the vehicle was locked up, another car had to be secured in order that more paths might be found.

### Halting Near Tracks Causes Death.

In a peculiar accident in which Seele H. Ellis, a wealthy resident of Brooklyn, N. Y., lost his life, occurred on Saturday last, October 15th, at New York avenue and Rockaway turnpike, L. I. Ellis had punctured the left rear tire and stopped in the street, quite close to the trolley tracks, to fix it, but before he was finished with the repairing a trolley car came along and crushed him against his automobile. The running board of the street car struck him in the side, breaking a rib and bruising him frightfully. He also suffered a severe wound on the head and was picked up unconscious, his death taking place soon after his removal to the Jamaica hospital. The motorman of the car has been arrested, although he is said to have been innocent of the death, the darkness preventing his seeing the bent figure at the side of the stalled automobile until it was too late. It is unknown what caused Ellis to halt his car so near the tracks instead of at the side.





Volume XXV.

New York, U. S. A., Thursday, October 27, 1910.

No. 4

## TIRE PRICES ARE COMING DOWN

**Manufacturers so Notify their Larger Customers—Reduction Due December 1st and will Average 15 Per Cent.**

The long-looked for reduction in the price of tires at last is in sight. It will come to pass on December 1st and will average about 15 per cent. The Diamond and the Fisk rubber companies were first to announce that the price of their product will be lowered on the date stated; they gave notice to this effect to all of their larger customers during the current week.

The forthcoming reductions are made possible by the easier tone that now prevails in the crude rubber market both here and abroad. In London, the price of the crude article declined with almost startling abruptness during the present week, dropping 14 cents within three days; there the best grades rule at from \$1.38 to \$1.40 per pound. In New York, practically the same prices prevail, Up-river fine Para, being quoted at \$1.40 for deliveries up to January 1st, although spot purchases brought \$1.45.

The skyrocket rise in the price of rubber which from 69 cents in February, 1908, attained its height this summer when \$2.86 per pound was reached, has been one of the industrial sensations. The fall has been gradual and several times has been more apparent than real, some of the tire manufacturers complaining that immediately they sought to purchase in any considerable quantities the prices promptly would stiffen and move upward.

### Claire Barnes Heads Selling Company.

Claire L. Barnes & Co. were incorporated this week with full paid capital of \$30,000, a move which means that Claire L. Barnes, one of the best known and best liked men in the trade, is establishing himself in business on his own account. He will be president and general manager of

the new undertaking, which will handle the entire output and be the sole representative of the Billings & Spencer Co., of Hartford, Conn., and the E. B. Van Wagner Mfg. Co., of Syracuse, N. Y. The former are classed as the largest producers of drop forgings and tools in this country, while the latter operate the largest die casting Plant. Barnes is negotiating with several other reputable companies, but the two named are sufficiently strong to assure the success of the new selling organization, which will have its general offices in Chicago with branches in New York and Detroit, and possibly in several other cities. Until arrangements are completed in Chicago, Barnes & Co. will make their headquarters at their Detroit office, 732 Penobscot building. Barnes himself is thoroughly versed in the business in which he has engaged, having resigned the secretaryship of the Detroit Steel Products Co. about two and a half years ago to become general sales manager of the Billings & Spencer Co., of which he remains an official. He also will become an official of the Van Wagner company. Handling only unquestioned products and being direct factory representatives, Barnes & Co. are more than ordinary sales agents and are in position to render the sort of service that counts when service is required.

### Silent Sioux Going to Sioux Falls.

Although it cannot be identified as one of the going industries of Milwaukee, Wis., according to reports from Sioux Falls, S. D., the Silent Sioux Automobile Mfg. Co., of Milwaukee, has obtained South Dakota backing and will remove its plant to Sioux Falls within the next 30 days and produce at least 500 cars for next year's market. Allen R. Fellows and George R. Burnside are named as the Silent Sioux who effected the necessary arrangements, which included obtaining possession of a 20 acre factory site on which stand a disused woolen mill and other buildings. It is stated also that the Luverne Automobile Co., of Luverne, Minn., probably will be consolidated with the Silent Sioux.

## EXTRAVAGANT CLAIMS EXPENSIVE

**Court Holds They Entitle Dissatisfied Purchasers to Damages—Hard-fought Case Involving Imported Car.**

On Saturday last, 22d inst., judgment for \$8,452 in favor of Edward T. Bedford was entered in New York against the Hol-Tan Co., of that city. The judgment represents the result of a hard-fought suit involving some issues common to every day merchandising and others peculiar to the sale of automobiles and is, therefore, of significance to the entire trade.

It appears that in 1906 Bedford, the plaintiff, who is identified with the Standard Oil interests, purchased from the Hol-Tan Co. a 50 horsepower Fiat chassis, of which the defendants then were but no longer are the American importers. He paid \$10,500 for it, the sale being made by E. R. Hollander, the then vice-president of the Hol-Tan Co., who, Bedford testified, made great claims for the Fiat, asserting that it was better, faster and more powerful than any other car of its class, and that it would require no more attention or expense than the car then owned by Bedford.

In his complaint Bedford alleged that it was by these representations that he was induced to make the purchase, which fell so far short of expectations and representations that he demanded the return of his money. When this demand was refused, Bedford notified the Hol-Tan Co. that he would sell the chassis and offered that company an opportunity to buy it. The offer was declined and Bedford sold the Fiat for \$3,000 in August, 1907, and entered suit for \$7,500, which amount is the difference between what he had paid for the chassis and what he sold it for. Justice Greenbaum in Part XVIII of the New York Supreme Court appointed Frederick T. Wait a referee to hear the case.

Bedford alleged that the car was not well made nor of good material, that it did not

develop the power claimed, that it would not run smoothly or climb hills, and was continuously out of order and in the custody of defendants for repairs, the defendants failing to remedy the defects. He further claimed its cost of up-keep and for repairs was much greater than for his old car. The Hol-Tan Co. entered a general denial. Its claim is that such representations as were made at the time of sale were those incident to the usual guarantee, and that misuse and neglect or unskilful attention were the causes of the unsatisfactory service.

In the trial before the referee both sides produced expert witnesses, but the referee found Bedford's claims "correct and justified." Among other things, he held that claims made in effecting a sale which afterward are found to be extravagant or unwarranted entitle the purchaser to damages; also that though the plaintiff's retention of the chassis for a time could be considered an acceptance, his right to recover damages survives such acceptance. Justice Greenbaum approved the findings of the referee and gave judgment for the plaintiff for the full amount, plus interest and costs which brought the total sum to \$8,452.

Before the report was confirmed, however, an unusual situation developed. Referee Wait died and it was alleged that the signature attached to his report was not his own and that he had been too ill to sign a document of any kind. Handwriting experts were brought into the case, but the report was confirmed, as stated. The Hol-Tan Co., however, declares that it will appeal to the higher court.

#### **Increases Capital; Divides 30 Per Cent.**

At the annual meeting of the Imperial Automobile Co., of Jackson, Mich., last week, a 30 per cent. dividend was declared and the capital stock of the company increased from \$150,000 to \$450,000. Of the new issue, \$150,000 is represented by 8 per cent. preferred shares. The company produced 500 cars during the past season, and with a factory addition which has been completed, expects to about triple its output for the 1911 demand. The officers and directors elected at last week's meeting are as follows: B. M. DeLamater, president; H. S. Reynolds, vice-president; T. A. Campbell, secretary and treasurer. Directors: W. S. Kessler, Winthrop Withington, E. W. Barber, W. R. Smith, F. Tiffany, T. E. Barkworth, Jackson, Mich.; F. E. Davis, La Crosse, Wis.; M. H. Davis, Minneapolis, Minn.

#### **Anderson Holds Its Annual Meeting.**

At its annual meeting in Detroit on Friday last the Anderson Carriage Co., makers of the Detroit electric, elected the following officers for the ensuing year: W. C. Anderson, president; C. A. Newcomb, vice-president; F. E. Price, second vice-president and secretary; W. M. Locque, treasurer;

G. D. Fairgrieve, assistant treasurer and manager of sales; W. P. McFarlane, factory superintendent; G. M. Bacon, electrical engineer. The new building in which the company will build its motors is rapidly nearing completion, and as soon as completed the force of officers and workmen from the Elwell-Parker Electric Co., of Cleveland, will be transferred to Detroit.

#### **Body Builder in Financial Troubles.**

Sumner Healy, a builder of carriages and automobile bodies at Mount Vernon, N. Y., has filed a petition in bankruptcy, with liabilities of \$20,054 and no assets. Among the claims are one for \$15,571 by Robert F. Schwarzenbach for money loaned, and one for \$2,000 by John A. Joachim, being the damages demanded in a suit for assault and battery, begun in the city court on July 9th.

#### **Fire Destroys 32 Diamond Cars.**

Fire during the night of the 18th inst. practically destroyed 32 partly finished cars and for a while threatened the factory of the Diamond Automobile Co. at South Bend, Ind. The paint shop, in which the flames originated, was burned to the ground, but the remainder of the plant was saved. The total loss is estimated at \$50,000; partly covered by insurance.

#### **Selden Suit Brought Against Bergdoll.**

Suit under Selden patent was filed last week against the Louis J. Bergdoll Motor Co., in the United States Circuit Court for the District of New Jersey, service having been made on the defendant. The Bergdoll company is known through its sales organization in Philadelphia and recently commenced the manufacture of the Bergdoll "30."

#### **London Firm Gets Krit for Canada.**

W. J. Reid & Son, London, Ont., have been given the Canadian agency for the Krit car. The appointment was the result of a visit paid to London by President Piggins and Secretary Kanter of the Krit company.

#### **Gramm Company to Remove to Lima.**

On November 1st the main offices of the Gramm Motor Car Co. will be removed from Bowling Green, O., to Lima, O.; the latter has been under construction for some time and is ready for occupancy.

#### **Fields Leaves for Pacific Coast.**

H. E. Fields, vice-president of the Hartford Rubber Works Co., left this week for one of his periodical visits to the Pacific Coast. He will be absent six or seven weeks.

#### **Detroit-Dearborn Admits Bankruptcy.**

After seeking extensions for several months, the Detroit-Dearborn Motor Car Co. of Detroit finally has been forced into the hands of a receiver, the Detroit Trust

Co. having been appointed to serve in that capacity. Creditors who refused to grant extensions first filed an involuntary petition in bankruptcy, and the company quickly acknowledged its insolvency by filing a voluntary petition. The concern was organized last year, and although it cut no figure in the industry and produced only a few cars, it managed to accumulate liabilities of \$117,000. The assets are not stated.

#### **Company Formed to Make Cumbuck Truck.**

To manufacture a 1,000 pounds delivery truck listing at \$1,000, the Cumbuck Motor Co. has been formed in Detroit with \$100,000 capital stock and temporarily is located at 224 First avenue. R. A. Bailey is president and treasurer of the company, R. O. Cumbuck, vice-president and manager, and W. S. Bailey, secretary. The truck, which will be styled the Cumbuck, will employ a two-cycle engine, planetary transmission, thermo-syphon cooling and steering post on the left hand.

#### **Smithson Would Make Co-Operative Tires.**

H. A. Smithson, of Los Angeles, Cal., has a great scheme for the production of tires, although it is not exactly a new one. He wants to produce them on the co-operative plan and thus make the big tire companies sorry they are alive. The scheme, however, has not advanced beyond the point of addressing letters to boards of trade and chambers of commerce of various Western cities in an endeavor to secure their assistance and "co-operation."

#### **Webb Fire Apparatus is Reorganized.**

The Webb Motor Fire Apparatus Co., of St. Louis, Mo., has been reorganized under the laws of Delaware, in which state it has been incorporated with \$1,500,000 capital stock. A. C. Webb remains president and general manager of the company. D. B. Blossom is vice-president and A. R. Force secretary.

#### **Philadelphia Jobber Gets More Room.**

The Manufacturers' Supply Co., of Philadelphia, Pa., which has been figuring increasingly in the jobbing trade, has removed from 418 Arch street to the corner of Juniper and Cherry streets, where about 20,000 feet of "elbow room" has been obtained.

#### **To Produce Trimmings in Pontiac.**

The Pontiac Auto and Accessories Co. has commenced business in the Michigan city of that name. It will manufacture body trimmings and several specialties. Frank Jacques is the prime mover in the project.

#### **Regal Adds a \$900 Touring Car.**

The Regal Motor Car Co., of Detroit, has added a \$900 touring car to its line. It mounts a four cylinder 20-25 horsepower engine and incorporates most of the Regal's well-known characteristics.

**ROGERS'S UNIKA HITS THE TRAIL**

**Pneumatic Tire Again in Danger—Capitalists Offer Large Lumps, but Unika Prefers the Public's Money!**

Once more the pneumatic tire is in danger of being "put out of business" and the tire magnates in danger of being reduced to penury and woe. Their old enemy, the spring wheel, again is on their trail. The pneumatic tire and the tire magnates have foiled that persistent enemy many times and oft during the past 20 years, but never has it failed to return to the attack in some new guise and wearing a new name.

On the present occasion, it is wearing the name Rogers Unika wheel, and L. L. Rogers, of Boston, Mass., is its inventor and sponsor. Quite a few people in the automobile industry have met Mr. Rogers and are not wholly unfamiliar with his wheel, the essential feature of which is a hub composed of spiral springs "guaranteed against manufacturing defects for five years and having a modulus of elasticity of fourteen million (14,000,000) times compression." Rogers was in Detroit only a few weeks ago, where he talked of his wheel and of J. Pierpont Morgan's control of the automobile industry.

Apparently his visit to that center of automobile manufacture did not prove exactly what he anticipated, for he returned to dear old Boston and now instead of trying to induce motor car manufacturers to use his invention he means to give the great public an opportunity to share the riches that will flow from his Unika. The Rogers Unika Wheel Co., Inc., already is in being. Rodgers himself is its treasurer and Noah B. Smith is its president. It also has a "fiscal agent" who has an office in Boston and the fiscal agent is carrying half-page advertisements in the Boston papers which tell "how fortunes are made." Just now the best way is to subscribe for Rogers Unika stock; its par value is \$10 per share but those who avoid the rush can buy it for \$5, and the ad. absolutely assures investors that the stock "will soon sell for five to ten times par," which is "going some" in the way of assurances, even of those having "a modulus of elasticity."

The Rogers Unika is peculiarly situated. It does not need much—merely "a factory and tools and machinery and working capital;" and Rogers Unika could get all of these incidentals right away quick—just like that! For—again to quote the ad: "We can get hundreds of thousands from capitalists, any hour, any day." But Rogers Unika spu-r-r-rns these "hundreds of thousands." The coin of no capitalist will pave the way to Unika glory, for "it would mean giving up the control of our company. Under no conditions will we do this. We

therefore give the public an opportunity to join us."

"If you knew our business as we know it," further declares the Rogers Unika ad, "if you knew our opportunity as we know it, you would be amazed; if we told you all, you would be forced to doubt us. Come to our office and let us show you, or send for literature, and we will send you proof that the world is our field."

Well may the tire barons prepare to reduce their prices and to shiver in their shoes!

**Importers Show in Hotel Ball Room.**

The New York importers who have made plans for a show of their own have engaged the big ball room of the Hotel Astor, New York, for the purpose. This "parlor" exhibition is scheduled for January 2-7, thereby conflicting with the "independent" show at Grand Central Palace. So far only nine importers have engaged space, of which 12,000 feet is available, but Paul Lacroix, of the Renault firm, who is one of the committee in charge of the arrangements, expects to round up 15 makes of foreign cars by the time the show is due. According to the press agents the exhibitors in the Hotel Astor intend to cater to the "exclusive" motoring public, and an admission fee of \$1 is expected to do its share toward obtaining such exclusiveness.

**Prospecting for an "A" Factory Site.**

The "A" Automobile Mfg. Co. is the rather unusual style of a concern made up of San Francisco men, which is "prospecting" for a factory site on the Pacific Coast. T. A. Cooke, its treasurer, recently visited Sacramento, Cal., for the purpose, and after critically inspecting the ground near a brick yard "practically assured" the Sacramentons who escorted him that an "automobile factory employing several hundred men will be built in the near future." Cooke talked of a plant costing \$200,000 that will have an output of nearly 5,000 cars annually. In addition to Cooke, the officers of the "A" company are E. C. Collins, president; J. H. Graham, vice-president, and C. E. Gibbs, secretary.

**Gramm Sets Aside a Big Surplus.**

Declaring that its gross business for the year just closed amounted to five times that of the previous fiscal period, the Gramm Motor Car Co., of Bowling Green, Ohio, has disbursed its regular dividend and placed the sum of \$140,000 to the credit of the surplus account. The recent annual election of officers resulted in the re-election of E. L. White, president; B. A. Gramm, vice-president and general manager; and F. E. Lamb, secretary. W. T. Agerteer was elected treasurer. He is secretary and treasurer also of the Lima Locomotive & Machine Works, of which Mr. White is president. The number of directors was reduced from nine to five.

**G & J NAME IN A "BARGAIN SALE"**

**It Was Adroitly Used but G & J Company Hales User to Court—Price Cutters Employ Familiar Tactics.**

The Guarantee Tire & Rubber Co., of Indianapolis, Ind., has learned that there is at least one trade name or symbol that it cannot trifle with—the symbol "G & J" as applied to tires.

The so-called Guarantee concern is one of the kind that apparently does not lack what may be termed nimble-wittedness when it comes to driving a bargain or when disposing of "bargains." Recently it drove a "bargain" in tires and of course it desired to turn over the money quickly. Accordingly it advertised the tires at a sliding scale of cut prices, but as the prices of themselves evidently were not considered sufficient to "turn the trick" the symbol "G & J" was carried into the advertisement in a more or less adroit fashion.

"We offer 3,000 new 1910 G & J style Clincher and Quick Detachable Clincher Casings and Tubes," was the way the ad. read, the initials "G & J" being brought out in large, spread-eagle type and separate and apart from the remainder of the matter, an illustration of what might appear to be a G & J tire being employed to add point to the suggestion that the tires advertised were G & J tires, despite the statement made in very, very much smaller type that "the tires we offer represent the product of several well known manufacturers."

Like all "philanthropists" of its class, the Guarantee Tire & Rubber Co. never, never would deceive or seek to deceive a generous public. For if it is read as it should be read does not the advertisement plainly say "G & J style clincher casings and tubes" and not "G & J casings and tubes?" Lots of other smart people have employed the same style of advertising. The G & J Tire Co., however, is one of those that not only does not hold such "smartness" at its face value, but does not mean that its trade name shall be taken in vain or used to convey false or misleading impressions to the public. As the result of these leanings, the G & J company has instituted action against the Guarantee Tire & Rubber Co. for illegal use of its trade name and the outcome cannot fail to be of benefit to trade and public alike, and it probably will serve to put something of a damper on advertising of this sort.

**To Enlarge Maxwell's Western Plant.**

The Maxwell-Briscoe-Newby Co., of New Castle, Ind., has certified to a change of name to the United States Motor New-castle Co. Its plant, incidentally, is to be increased by the erection of a large addition, 160 x 280 feet.

## THE WEEK'S INCORPORATIONS.

Sioux Falls, S. D.—E-M-F Sioux Falls Co., under South Dakota laws, with \$25,000 capital; to deal in automobiles.

Butler, Pa.—Atwell Auto Co., under Pennsylvania laws, with \$25,000 capital; to deal in automobiles and conduct a garage.

Cleveland, Ohio—Militaire Auto Co., under Ohio laws, with \$300,000 capital. Corporators—M. L. Thomas, G. A. Gaston and others.

Detroit, Mich.—Cumback Motor Co., under Michigan laws, with \$1,000 capital. Corporators—A. A. Bailey, W. S. Bailey, R. O. Cumback.

Dallas, Tex.—Goodyear Tire & Rubber Co. of Texas, under Texas laws, with \$10,000 capital. Corporators—C. H. Gray, H. C. Waite, G. W. Rogers.

Wilmington, Del.—Blair, Scofield & Co., under Delaware laws, with \$100,000 capital; to manufacture and deal in automobiles, motor trucks and other motor vehicles.

Cape Girardeau, Mo.—Southwest Missouri Motor Car Co., under Missouri laws, with \$15,000 capital. Corporators—E. M. Rowe, J. W. Phillips, George McBride.

Cleveland, Ohio—Blue Blaze Spark Plug Co., under Ohio laws, with \$1,000 capital. Corporators—A. J. Hudson, A. R. Bullock, G. T. Bullock, A. F. Kivis, Nora Bresnan.

Los Angeles, Cal.—Owen Auto & Taxicab Co., under California laws, with \$25,000 capital, \$300 of which has been paid in. Corporators—C. H. Owen, J. W. Owen, A. W. Owen.

Minneapolis, Minn.—Auto Appliance Co., under Minnesota laws, with \$100,000 capital. Corporators—O. M. Bergstrom, S. E. Eastlund, M. L. Burkhardt, J. N. Smith, all of Minneapolis.

Cleveland, Ohio—Cleveland Aplco Sales Co., under Ohio laws, with \$10,000 capital; to deal in automobiles. Corporators—W. C. Phelps, E. Albright, P. D. Metzger, P. C. Stoller, D. C. Stewart.

Celina, Ohio—Wildam Cron Sons Co., under Ohio laws, with \$35,000 capital; to manufacture wagons, automobiles. Corporators—John A. Cron, Flora C. Schele, F. J. Cron, A. W. Cron.

Los Angeles, Cal.—McCarthy-Parker Automobile Co., under California laws, with \$15,000 capital, of which \$30 has been paid in. Corporators—Walter J. McCarthy, O. K. Parker, F. L. Mitchell.

Buffalo, N. Y.—Mitchell Automobile Co., under New York laws, with \$23,000 capital, of which \$5,000 has been paid in. Corporators—Alphonse Karl, John J. Gibson, Jacob F. Kramer, all of Buffalo, N. Y.

Oradell, N. J.—Wortendyke Garage Co., under New Jersey laws, with \$3,000 capital; to deal in automobile supplies and conduct a garage. Corporators—Stella D. Wortendyke, John S. Wortendyke, Victor A. Hart.

St. Louis, Mo.—Washington Automobile Co., under Missouri laws, with \$10,000 capital; to do general automobile business. Corporators—Anthony Celler, Adolph Simon, Charles J. Schneider, Arthur Sonntag.

Babylon, N. Y.—E-Z-Way Motor Grease Co., under New York laws, with \$100,000 capital; to manufacture and deal in greases and oils. Corporators—W. E. Dunn, C. F. Hilke, F. J. Cullingworth, of New York City.

Chicago, Ill.—Clark Delivery Car Co., under Illinois laws, with \$5,000 capital; to manufacture and deal in automobile delivery cars and supplies. Corporators—Albert C. Clark, Almon W. Bulkeley, Joseph F. Gillen.

Memphis, Tenn.—Hazen Automobile Co., under Tennessee laws, with \$25,000 capital; to deal in merchandise, specifically in automobiles. Corporators—Fay E. Hazen, A. N. Hattom, H. D. Goff, J. M. Goff, H. H. Bonner.

Hopkinsville, Ky.—Ideal Motor Car Co., under Kentucky laws, with \$10,000 capital; to deal in automobiles and other vehicles, and maintain a garage. Corporators—Sam Frankel, William Kimmons, Charles S. Jackson.

Detroit, Mich.—Bennett Axle & Transmission Co., under Michigan laws, with \$150,000 capital; to manufacture automobile axles and transmission gears. Corporators—Frank E. Humphrey, Charles Gleason and others.

New York City, N. Y.—J. W. Buckley Rubber Co., under New York laws, with \$40,000 capital; to manufacture and deal in all kinds of rubber goods. Corporators—J. W. Buckley, J. H. Buckley, E. H. Deane, all of Brooklyn, N. Y.

Brooklyn, N. Y.—Globe Anti-Friction Roller Bearing Co., under New York laws, with \$50,000 capital; to manufacture machinery and appliances, roller bearings, etc. Corporators—J. Newman, W. M. Bretow, A. Wentz, all of Brooklyn.

Syracuse, N. Y.—James Auto Co., under New York laws, with \$25,000 capital; to deal in accessories and supplies, to manufacture, sell and rent automobiles. Corporators—F. H. Plumb, F. E. Welch, W. D. Andrews, Syracuse, N. Y.

Jersey City, N. J.—United Motors South Bend Co., under New Jersey laws, with \$2,000 capital and a main office in Jersey City; to manufacture and deal in automobiles and accessories. Corporators—H. O. Coughlan, L. H. Guenther, John R. Turner.

Norristown, Pa.—Modern Auto Supply Co., under Delaware laws, with \$35,000 capital; to manufacture and deal in automobile accessories and supplies. Corporators—Walter C. Atkinson, J. Malsby White, Henry S. Goetz, all of Norristown, Pa.

Dayton, Ohio—Montgomery County Auto Co., under Ohio laws, with \$15,000 capital;

to deal in motor vehicles and maintain a renting service. Corporators—Howard G. Wiley, Sylvester A. Long, A. M. Keplinger, Charles E. Foreman, P. M. Keplinger.

Detroit, Mich.—Michigan Bolt & Nut Works, under Michigan laws, with \$300,000 capital; to manufacture tools, bolts and other parts for automobiles and machinery. Corporators—Sarah Bacon Hill, Edward Y. Swift, Levi L. Barnour, Hester McLean, and the estate of Edward D. Gilbert.

St. Louis, Mo.—Superior Motor Sales Co., under Missouri laws, with \$75,000 capital; to manufacture and deal in automobiles. Corporators—Oliver L. Garrison, Oliver L. Garrison, Jr., of St. Louis, and Murray M. Baker, of Peoria, Ill., with equal amounts of shares.

Detroit, Mich.—Nederlander Auto Sales Co., under Michigan laws, with \$10,000 capital, \$6,000 of which has been paid in; to deal in motor vehicles. The company is a reorganization of the Nederlander Auto Co., chartered a month ago in Detroit with \$5,000 capital. Corporators—A. Simon, Julius Cassel, Charles Simon, H. Nederlander.

New York City, N. Y.—Lovelace-Thompson Aeroplane & Motor Works, under New York laws, with \$100,000 capital; to manufacture automobiles, automobile engines, motors and aeroplanes. Corporators—R. L. Offett, N. A. Egbert, of New York City; M. Ogg, of Jersey City, N. J.

Richmond, Va.—Chesterfield Motor Car Co., under Virginia laws, with \$15,000 maximum and \$2,000 minimum capital; to maintain a garage and repair shop, to deal in automobile and to operate sight-seeing cars. Corporators—William E. Nichols, F. E. Nichols, B. G. Hathaway, all of Richmond, Va.

## Recent Losses by Fire.

Atlanta, Ga.—D. M. Stanford's garage and one runabout destroyed. Fired by incendiary.

Grand Rapids, Mich.—J. M. Weeks's garage and one automobile burned. Loss, \$2,000; partly insured.

Springville, N. Y.—Prinz & Schneider; garage and one runabout destroyed. Total loss, \$10,000; garage loss, \$4,000, covered by insurance.

Dobbs Ferry, N. Y.—Frederick Smith's garage on Cedar street; building and ten automobiles destroyed. Proprietor fatally injured. Loss, \$50,000.

## Increases of Capital.

Detroit, Mich.—Auto Equipment Co. increases capital from \$50,000 to \$75,000.

Jackson, Mich.—Imperial Automobile Co., increases capital from \$150,000 to \$450,000.

Kansas City, Mo.—Stafford Motor Car Co. increases capital from \$100,000 to \$400,000.



## IN THE RETAIL WORLD.

Henry Spencer and Clifford Britton are building a new garage in Howell, Mich.

Wharton, Tex., has a new garage "in its midst." G. D. Hearhart, formerly of Houston, Tex., is its manager.

The Tower Motor Co., of Adams, Mass., has invaded North Adams. It is building a garage on West Main street.

Theodore Tollack has opened a garage and repair shop in Black River Falls, Wis. Overland cars will be featured.

Work has commenced on a brick garage in New Haven, Conn., which will cost \$10,000. S. A. Lewis is building it.

A new garage has been opened at Granger, Tex. Barney Benefel and Sam Martin are the men behind the enterprise.

Harold Brown and G. B. Davey have formed a partnership and will sell supplies and accessories in Stevens Point, Wis.

Work has commenced on the new S. A. M. garage at 256-262 George street, New Brunswick, N. J. It will be 53 x 110 feet.

The Doerr-Brown Co., has opened up at the corner of Olive and 12th streets, San Francisco, Cal. It is handling the Knox car.

The Correja Motor Car Co., of New York City, has opened a branch in Newark, N. J. It is located at Branford place and Treat place.

The Auto Supply Co., of Milwaukee, Wis., recently organized with O. F. Fishedick as president, has opened an accessory store at 127 Second street.

Incorporated under the laws of Missouri, the Cole Motor Car Co. has opened up at 4123-25 Olive street, St. Louis, Mo. H. M. Payne is the manager.

The Kansas City (Mo.) branches of the Rapid and Reliance Truck companies have consolidated and opened a new garage at 1420 Woodland avenue.

Under the style O'Donnell & Wickers a new firm has started in business on Tenth street south, Minneapolis, Minn. They are handling Bergdoll cars.

Work is progressing on a garage which is being built by George Schaas on Eighth street, Fargo, N. D. It will cost, when completed, about \$7,000.

N. L. Rush, of Boston, Mass., has opened a salesroom and garage in that city, where he will display Kline cars. They are located in the Motor Mart.

J. D. Knowlton is the owner of a new garage which has been opened in Waterloo, Wis. It is located on Madison street, and will house Overland cars.

C. H. Geist is building a garage at the northeast corner of 64th street and Drexel avenue, Philadelphia, Pa. It will be two stories high and cost \$5,500.

Julian B. Miles is building a modern fire-proof garage at the corner of South Clin-

ton and Taylor streets, Syracuse, N. Y. It will cost when completed \$10,000.

Work has been started on a new garage at 104-106 West Church street, Elmira, N. Y., where Oakland cars will be sold. Harry E. Richardson is the man in charge.

Wilcox trucks will be the chief stock-in-trade of a new concern just formed in Boston, Mass., under the style the Wilcox Motor Truck Co. Frank S. Corlew is the manager.

Capitalized with \$10,000, the Washington Automobile Co. has been formed in St. Louis, Mo., to operate a garage at 526-528 De Baliviere avenue. It will be managed by Adolf Simon.

The little village of Davis, in Yolo county, Cal., soon will have its first garage. Theodore Schmeiser is building one which will be 50 x 80 feet, of brick and concrete, and will cost about \$2,000.

The Fidelity Motor Car Co. has been organized in Cleveland, Ohio, with E. H. Sykes as manager. Moline cars will be featured in the salesrooms which are located at 2364 Euclid avenue.

Chartered under the laws of South Carolina with a capital of \$10,000, the Roddey Automobile Co. has begun business in Columbia, S. C. J. B. Roddey and J. J. Cain are the men in control.

Dr. A. F. O'Leary, Michael D. Russell and John Grimes have formed a partnership under the style the Star Garage Co., and opened a garage in Waterbury, Conn. It is located on South Main street.

McIndoes, Vt., is decidedly progressive, for although it has but a handful of inhabitants a garage capable of holding 20 cars is being built there. J. H. Stuart is the genius responsible for the venture.

George Brown, who conducted a machine shop on Oak and Nevada streets, Maxwell, Cal., has sold his business to A. J. Recker and has purchased property on Oak street, where he will build a modern garage.

Styling themselves the Economy Auto Supply Co., Theodore Kaplan and E. Elin, of Newark, N. J., have opened an accessory store at 268 Halsey street. Kaplan formerly was with the Empire Auto Supply Co.

With the intention of selling American cars, made by the Jonz Auto Co., a new concern has been incorporated at Glenwood, Ia., under the style the Glenwood-Jonz Auto Co. The company has a capital of \$15,000.

The Lowe-Howard Co. is the style of a new firm which has opened salesrooms in Boston, Mass., where it will display Krit cars. The veteran George H. Lowe, Frank Howard and George E. Tufts are the members of the firm.

Howard G. Wiley, formerly a partner in the People's Motor Car Co., Dayton, O., has formed the Montgomery County Auto Co., in the same town, with a capital of

\$15,000. Salesrooms have been opened at 27 East Second street, where E-M-F cars will be shown.

Buick cars are to form the mainstay of a new firm which just has been organized at Jacksonville, Fla., under the style the Jacksonville Buick Agency. J. H. Spencer, J. A. McRae, Jr., and D. H. McMillan are the men behind the venture.

With a floor space of 100 x 100 feet, the new garage erected for A. C. Burton & Co., at the corner of La Branch and Texas avenues, Houston, Tex., is one of the largest garages in the South. It is two stories in height and will house Chalmers and Hudson cars.

Oscar M. Swedburg, of Holdrege, Neb., who recently purchased the Danielson Garage, has sold his entire stock to C. Engstrom, owner of the Hanson Garage, on West avenue. Engstrom will merge the two stocks and conduct the business from the West avenue garage.

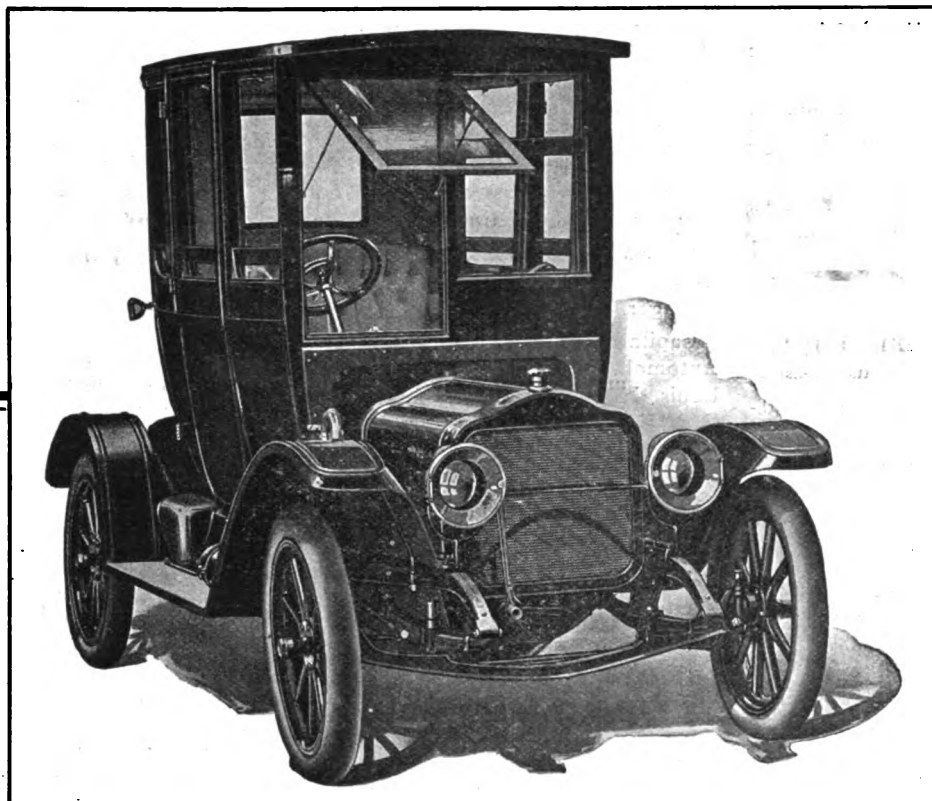
Lindsley & Tryon, Pawtucket, R. I., have been petitioned into bankruptcy. At the creditors' meeting before the referee, Lindsley, the senior partner of the firm, was unable to explain what had become of \$500 drawn from the firm's account at the bank, or why there were missing pages in the firm's books.

Permits have been granted the Canadian Overland Co., of which G. R. Rastall is the managing director, for the erection of a new garage in Regina, Sask., at Albert street and Victoria avenue. The structure will be of brick, 50 x 125 feet, with concrete floor and plate glass front, and will be steam heated and electrically lighted and in all other respects thoroughly up to date.

Bernard C. Bowen has been appointed receiver of the Special Motor Vehicle Co., of Cincinnati, Ohio, by order of Judge Warner, of the Ohio Insolvency Court, Harry C. Strieker, a creditor of the concern, having petitioned the company into bankruptcy, alleging \$4,833.55 due him. The company has been operating as a garage and repair shop at Eighth street and Broadway since 1902, but the property recently was condemned to make way for a viaduct. The concern found it impossible to obtain suitable quarters and was placed in financial straits. Its assets are estimated at \$3,500.

## Snutsel Sails to Spread Splitdorfs.

Paul F. Snutsel sailed on Saturday last for an extended visit to Europe in the interests of C. F. Splitdorf, of New York. He will attend both the London and the Paris shows, at the latter of which he will have charge of the exhibit of Splitdorf magnetos. Thereafter he will visit the automobile manufacturers of France, Germany and Italy with a view of extending the use of the Splitdorf magneto, which has a much greater sale abroad than the average American fancies is the case.



## A Woman's Town Car

**M**OST women have felt compelled to drive electric cars—especially in the Winter—because no gasoline car was designed for a woman to drive. The White Company, as usual, alive to the situation, has brought out such a car—the inside driven coupe. In this coupe all the objections of former coupes have been overcome. It has a door on either side and the driver's seat folds up to make entrance easy from either side. At last, there is a properly designed coupe car seating from three to four persons besides the driver.

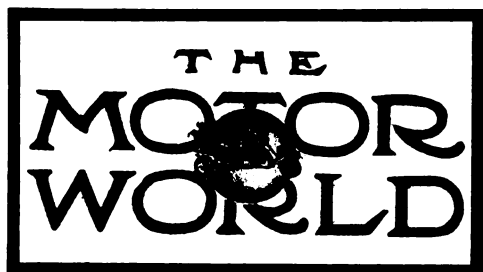
## The White Coupe

The White Coupe is an elegant, aristocratic looking town car with a snugness all its own and an ability to thread its way in and out of the crowded city streets enjoyed by no other car. The details of equipment, such as upholstery, electric lights and the little accessories are all of the finest imported materials—the best that money can buy. In fact, nothing has been overlooked that could contribute to a woman's satisfaction in a car which is so particularly designed for her personal use.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO



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**Accidents that Can be Avoided.**

It is one of the peculiarities of human anatomy that when a man bends over he projects in two directions. The incident of a character in one of Cooper's Leather-Stocking Tales, who was wounded so that he could not sit down, while endeavoring to peer around a tree, behind which he had taken refuge, aptly illustrates the point. An up-to-date and no less suggestive illustration may be found along almost any narrow highway that is much frequented by motorists, if it be sought either where the road is rough or at about the hour of the gloaming.

Within the past few weeks a number of serious casualties have been reported in which the injured was struck by a passing car as he stooped beside his machine while lighting the lamps or replacing a tire. The plain truth of the matter is that too many motorists are either too ignorant of anatomical principles or too careless of their own safety to be properly watchful of pass-

ing traffic while they are engaged on the left side of their machines. That in many instances they are, also heedless in not laying up their cars outside the path of other vehicles also is true, though it frequently happens that on narrow roads this is impossible. The continuance or suppression of accidents of this nature may be termed largely a personal matter with the individual motorist; yet it is one of those personal matters in which an attitude of rigid scrupulousness may accomplish a great deal in relieving the apprehension of the timid and reducing the percentage of risk.

**Evidences of Trade Reconstruction.**

One of the most promising signs of the times is the careful and systematic method that is being employed in developing the various markets of the automobile industry. Until within a relatively short period the market for cars and accessories was largely self-inductive; so, too, were the demands for garage and repair facilities, and likewise the dependent requirements for supplies, components and materials, manufactured and raw. But the intensity of competition increases very rapidly as the number of competitors multiplies and as the requirements of the markets converge toward set standards; when conditions are such as to make it appear, no matter whether justly or otherwise, that the supply is about to outrun the demand, competition reaches a fever heat.

Some such condition as this has bred at the present time a series of such shrewdly planned and sagely directed long-distance development schemes as the automobile business of the past never could have known. And it is a fortunate circumstance that increasing competition is being met in many quarters in this thoughtful manner. For no manufacturer, jobber, dealer or garageman, whether alone or working in conjunction with others, is going to adventure his time and money in a constructive merchandising plan unless his better judgment tells him it carries fair prospects of success. Insofar as this tendency exists, therefore, it indicates freedom from purely speculative effort.

By all odds the most striking and conspicuous of such projects is the co-operative undertaking of the electric vehicle manufacturers and central station men practically to rebuild the market for electric automobiles. Not only does the plan include improvements in charging facilities and in

systems for vehicle inspection and maintenance, but it postulates the service of the central station men as practical advertising agents and salesmen for the electric vehicle itself as well as of the particular form of energy upon which its activities depend.

The principle is much the same as that which has led gas companies to instal cooking ranges at low cost to the consumer, or that has produced any one of a hundred other indirect methods of market stimulation.

Nor is the sudden energizing of the electric end of the producing industry the only illustration of the trend toward business construction. The Society of Automobile Engineers has undertaken the prodigious task of reducing parts and material specifications to an economic basis. In this it is receiving the assistance not only of the components producers, but of the automobile manufacturers, whose support is none the less hearty though rendered indirectly through the offices of their engineers. Where the constructive element in the industry is not openly organized it is still progressing toward unity of effort, from the supervision of automobile contest matters through all the ramifications of a very complex business upward and inward to the organized treatment of the delicate subject of credit information.

The growing stability of the industry is further evidenced in the independent efforts of individual manufacturers, whether in moving-picture and lecture campaigns, in the establishment of service depots and branch assembling factories, or in the cultivation of foreign fields, in addition to the development of direct markets. In the manufacture and sale, as in the use, of automobiles the bloom of novelty has been pretty well rubbed off. The outcome of the inevitable test of time must depend on the grip that is now being developed and on the combined strength and elasticity of sound organization.

**Opportunities Offered by the Electric.**

In connection with the exploitation of the electric automobile by the joint efforts of its manufacturers and the producers of charging current it must not be lost sight of that the garageman who is wideawake has an opportunity to render the movement considerable assistance besides reaping some little personal profit. While the suggestion is directed mainly at those

whose establishments are located in cities where the electric already has gained a considerable foothold, it also may be heeded by others whose locations are such that good roads, live business interests and a reasonably prosperous population afford conditions suitable for the introduction of machines possessing the peculiar economies of the electric. The ability to subscribe for dependable charging service is not necessarily essential in such instances, because many an isolated garage has a repair shop equipment to which a charging outfit could be added with reasonable expectation of profit, once the demand was assured.

Speaking in general terms, however, there is no reason why the housing and care of electrics should not be made a source of considerable revenue if properly undertaken. To do so it is necessary, first of all, to acquire a thorough understanding of the storage battery and to prepare to give the customer not simply the sort of service which will yield him a maximum of economy from his machine, but also to afford him that educational instruction which the peculiar, though elementary, requirements of the system demand. Where it is possible to do so, a competent battery man should be engaged for that work exclusively, and he should be charged with the oversight of all outfits under his care, not merely when they happen to be brought in for repairs, but on a basis of frequent and regular inspection. Given proper battery service, the remaining details of electric vehicle upkeep are readily mastered and easily and economically performed.

Even where the customer prefers to charge his batteries at home, the services of the garageman need not be entirely dispensed with. If he chooses to arrange for regular inspection of the battery and of the vehicle mechanism on a contract basis, he may thereby secure a constant though small income, while insuring for himself all repair work that may be required, as well as the perquisites of the annual overhauling and painting job. Not only this, but in many instances the owner who has an electric at some time may become the owner of a gasoline car; many motorists at present own vehicles of both types and will continue to do so as long as both exhibit equally desirable and independent characteristics. If such an owner already has been made a secure customer through service rendered with one type of machine,

## COMING EVENTS

October 28-29, New York City—New York "American's" motor truck contest.

October 29-30, Jersey City, N. J.—Reliability run of Automobile Club of Hudson County.

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on Speedway.

November 4-6, Kansas City, Mo.—Race meet under auspices Kansas City automobile dealers.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 7-11, Chicago, Ill.—Reliability contest under auspices of Chicago Motor Club.

November 8, Yonkers, N. Y.—Mount Vernon Automobile Club's racemeet at Empire track.

November 10-13, San Antonio, Tex.—San Antonio Automobile Club's races at International Fair grounds.

November 11, Savannah, Ga.—Savannah Automobile Club's light-car road race.

November 12, Savannah, Ga.—International road race for the Grand Prize of the Automobile Club of America.

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, New Orleans, La.—Race-meet under auspices of New Orleans Automobile Club.

November 26-27, Los Angeles, Cal.—Motordrome races.

he almost surely will remain so when he increases his equipment.

In addition to an active campaign in promoting the sale and use of electrics, the central station people are making preparations to inaugurate thorough systems of battery maintenance. In some instances this movement may represent an encroachment on business that the garageman might secure were he so disposed; in others it merely represents an opportunity for him to enter into a constructive alliance with live and well guarded commercial interests with which it will do him no harm to cooperate. The present campaign promises large results: so much of those results as

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Twenty-four hours race at Motordrome.

December 31-January 7, New York City—"Independent" automobile show in Grand Central Palace.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 15-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-22, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

February 25-March 4, Toronto Canada—Annual show under auspices of Ontario Motor League.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

April 1-8, Montreal, Can.—Annual show in Coliseum.

the garageman can divert to his own uses by affording his support to the movement are rightfully his for the seeking.

Now that the bond market is improving and bankers having gone into the automobile business are peddling securities in that line, some one is unkind enough to suggest that there will be less said about motor cars as the root of all extravagances and the mainspring of economic evil.

The difference between reputable control of sport and the other kind never was better illustrated than by the Oldfield-Johnson hoax.



## HEARST STARTS HIS TRUCK TESTS

Thirty-Seven Vehicles Demonstrate Their Ability to Run—Substantial Evidence that "Test" Served Its Purpose.

The Boston American held its motor truck contest, which consisted of an endurance run to Newburyport and return, on Friday and Saturday, 21st and 22d inst. This was the first of the Hon. Will-

iam Randolph Hearst's great series of truck contests, which is to be continued in other cities where his newspapers are printed. During the two days of the contest, and the day after, the Boston American was generously studded with advertisements of motor trucks; it is fair to assume, therefore, that the affair served its purpose and

to penalties based on road troubles which the official observers were able to detect during the run, the final scores will be figured around the total weight carried and the cost of the gasoline and oil consumed in covering the 125 miles or so of the course.

From 47 entries the list simmered down to 37 actual starters, 30 of which completed the two days' performance without serious difficulties. The seven delinquents were reported to have dropped out from "tire,

two Frayer-Millers, and two Johnsons. Class E, five tons—Sampson, Morgan, Mack, two Reliances.

In the private owners' division were entries from the following firms: Henry Siegel Co., Smith Bros., U. S. Column Co., John Wanamaker, J. S. Nelson, George Backus, William Mahoney, Abbott-Miller, Eastern Avenue Garage and the Treat Hardware Co.

The trucks were weighed light on Friday, and again with their rated loads, early



FIVE-TON RELIANCE WITH ITS LOAD OF LUMBER



FRAYER-MILLER CARRYING A LIGHT LOAD

iam Randolph Hearst's great series of truck contests, which is to be continued in other cities where his newspapers are printed. During the two days of the contest, and the day after, the Boston American was generously studded with advertisements of motor trucks; it is fair to assume, therefore, that the affair served its purpose and

valve, oil and other troubles." Six of the survivors were penalized for tardiness at controls.

All the competing vehicles, like the five official cars, were of the gasoline persuasion; no electric vehicles were entered. The following cars started in their respective classifications:

on Saturday morning. After the weighing-in at Haymarket Square, they were driven to the Cottage Farm Bridge, where the tanks were filled and sealed, and where the official launching of the contest took place. Mayor Fitzgerald, of Boston, of course, presided at these ceremonies, and in the pregnant moment before giving the final



TWO OF THE "BIG FELLOWS"—THE GARFORD AND THE SAMPSON TRUCKS

was a complete success. Apparently they still are figuring over the results, however, for little real information is obtainable as to the outcome.

The contest was modeled somewhat after the lines of the recent endurance run from Philadelphia to Atlantic City, which was promoted by another newspaper with a patriotic name. That is to say, in addition

Class A, 1,000 pounds and under—Three Metz's, Hart-Kraft, Warren-Detroit, Reliance, I. H. C.

Class B, 1,001 to 2,999 pounds—Two Rapids, Atterbury, Franklin, Wilcox, Gramm, two McIntyres, two Autocars.

Class C, 3,000 to 5,999 pounds—Two Garfords, Alco, Frayer-Miller, Victor.

Class D, 6,000 to 7,999 pounds—Knox,

word, amidst a thick hush, he spoke as follows:

"The Boston American is always anticipating the needs of the times and it is blazing the pathway for others to follow."

He concluded his remarks with this sentiment:

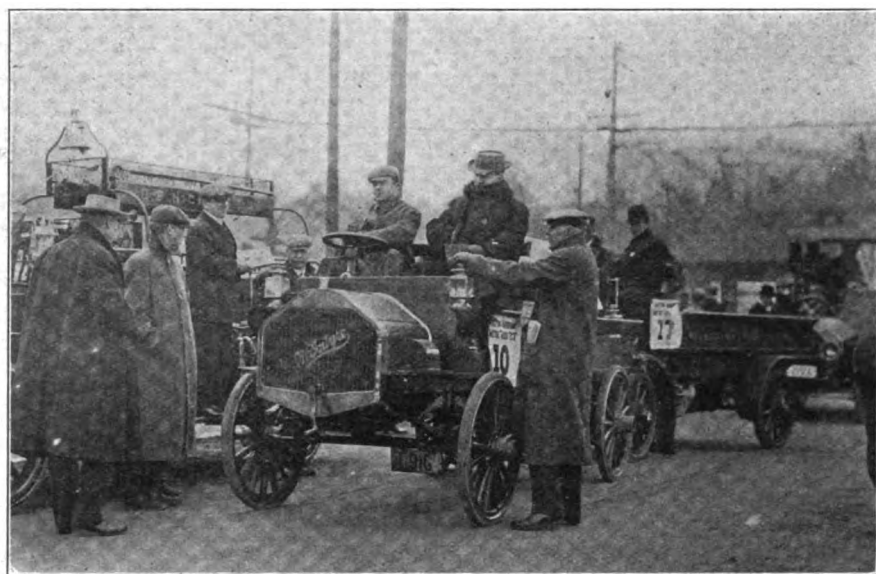
"As mayor of the city I am glad to be here."

Starting at half-minute intervals, the trucks followed the outward route to Newburyport by way of Lowell, Lawrence and Haverhill, making a total of 61 miles. Controls were established at each of the cities. Three of the contesting vehicles fell by the wayside.

The five-ton Reliance, entered by the Reliance Motor Truck Co., skidded in the soft sand as it was entering the town of Billerica before reaching the first check, and pitched into the gutter, injured beyond the possibility of immediate repair. One of the Johnson trucks in the class D division skidded on the car tracks in Lawrence, struck a telephone pole and was put out with two smashed front wheels and springs.

subsequently being compensated for by taking on an equal weight of water. Before the start of the return journey a change in the schedule allowed the class E trucks was announced. They had been given an average allowance of six miles an hour on the outward trip. On the return this was increased to eight miles an hour, as the first day's work had showed the big machines capable of better speed than was called for.

The route back to Boston was by way of Ipswich, West Gloucester, Manchester, Beverley, Salem, Lynn, Malden, Somerville and Cambridge to the Longwood avenue bridge. Checking stations were established at West Gloucester and Lynn.



LINING UP THE VEHICLES—McINTYRE TRUCK IN FOREGROUND

The third car to meet with disaster was the little sister of the big Reliance, that was running in the class for light vehicles. It was retired at Haverhill; its inability being laid to a bolt being lost from one of the cylinders.

The name Reliance again was beclouded when the second of the two entries of that make in the E class failed to appear on time at the end of the day. When it did come in, four minutes late, its crew declared its tardiness to be due to a "frozen bearing" occasioned by lack of oil. The amusing part of it was that the official load of the vehicle consisted in part of one ton of perfectly good lubricant in barrels.

The scene at Newburyport was further enlivened by the miring of the big Sampson truck, which made a deep, soft bed for itself in being manoeuvred about the night stopping place. One of the Gramm trucks came to the rescue and pulled it back to solid ground.

After being recharged with fuel and oil, the cars again were weighed on the second day. Incidentally, the fuel supply had been brought along as cargo for the five-ton Morgan truck; the lightening of its load

The day's casualties included the loss of one each of the Metz and McIntyre entries and the penalization of the two remaining Metztes.

Considerable interest was added to the performance of three of the trucks by reason of the fact that they had come considerable distances over the road before starting. The Garford, entered by the W. A. Buxton Machine Co., had come in from Worcester, about 40 miles; the Autocar, entered by John Wanamaker, had been driven from Philadelphia; while the new Victor had been brought over the road from Buffalo.

Many of the trucks carried useful loads, thereby affording their entrants some return in advertising for the loss of their time and the cost of the trip. The conditions were supposed to correspond with those of actual practice, and when the final scores are announced they will, no doubt, be proclaimed as eminently practical.

#### Sheds New Light on the Tire Problem.

Despite the relatively high outlay of the average motorist for his tires it is probable that the comparative expense of maintain-

ing the ordinary automobile wheel with its tires and the common buggy wheel seldom is compared on a basis of actual miles covered. Whereas the iron wagon tire seldom gives trouble, the wheel on which it is mounted usually requires attention at least once a year, sometimes oftener. The result is that considering the small mileage of the buggy, the comparative cost of its wheel and tire up-keep is much higher than commonly is supposed. In the case of the automobile, on the other hand, practically the entire up-keep expense falls on the tire and, with its higher initial cost, that device naturally is credited with far less serviceability than it actually yields, when distance, loads and speeds are duly taken into account.

#### Deadening Vibration in Repair Shops.

In equipping garages in which the repair shop is located on an upper floor, great care should be taken to prevent noise and vibration from being transmitted to the lower portions of the building. To a considerable extent this may be done by arranging suitable cushioned mountings for benches, anvils and machine tools. Pieces of sheet rubber may be used for the purpose, or even sawdust or sand packing. In the latter case, the filling material may be placed in a small box in which is placed a flat board or plate, upon which the part to be supported is permitted to rest, the filler afterward being placed around the part and tamped into place. When vibration is taken care of in this way and due care is exercised to keep doors leading to stairways and elevator wells closed as much as possible, very little difficulty will be experienced.

#### Enables Traveling Men to Deliver Goods.

Traveling salesmen long ago began to see the advantages of the automobile for their own transportation needs, but it remained for the Pacific Cereal Co., of San Francisco, Cal., to improve upon the plan of furnishing cars for traveling men by putting on the road a light truck equipped to carry a small line of goods in addition to samples. The machine used is an Autocar truck, and besides carrying a very complete line of samples, its capacity is sufficient to enable the firm's representative to make stock deliveries in small quantities to take care of the majority of emergency and rush orders.

#### Carburettor Screws that Work Loose.

In carburetors of the type in which the float valve construction depends upon a lever fulcrumed upon a small machine screw, there is some chance of disarrangement through the backing out of the screw in consequence of poor fitting or excessive vibration. To counteract this tendency such screws should be lightly peened or riveted over, to retain them in fixed adjustment.

**OLDFIELD-JOHNSON RACE A FARCE**

**Proves to be a Black and Tan Picture Stunt  
Five Thousand "Easy Marks" Pay  
to Be Humbugged.**

Something like 25,000 people were missing from the Sheepshead Bay (N. Y.) horse track on Tuesday lost, 25th inst., when, after two postponements, the Barney Oldfield-Jack Johnson "race" was "pulled off," to use the pugilistic term that aptly fits the case. The wise promoters of the stunt had given out that a crowd of 30,000 was expected, but despite some clever publicity work only about 5,000 "easy marks" put in

in the second heat he gave the camera a better picture by "cutting it fine" and finishing only a few yards ahead. The track is more than a mile around, but no one took the trouble to verify the distance the men drove, and if anyone cares to believe the combination of one signal flag waved by Oldfield's manager, another waved by a prize fight promoter and a watch held by a horse race man, he will believe that Oldfield covered the five miles the first time in 4:44, and the second time in 5:14½. He will also believe that Oldfield, the "outlaw," drove an exhibition mile in his big Benz, also outlawed, in 44¾ seconds.

Oldfield's manager, "Bill" Pickens, also outlawed, was master of ceremonies. He arranged the setting for the dice-throwing,



OLDFIELD, HIS NEGRO PAL AND SOME OF THEIR SET

an appearance and paid \$2 for witnessing the biggest hoax that has been perpetrated on the public during a considerable period.

The miserable affair was exactly what the Motor World alone stated it would be, i. e., a "moving picture race." Both the white "outlaw" and the black pugilist were under contract to moving picture concerns and it could not well have been anything else. Before the "race" started the negro fighter kicked over the camera of a moving picture man who had not paid for the privilege of being present, and then the black and tan principals went through a lot of motions that may look genuine to greenhorns when the pictures are thrown on screens. Oldfield and Johnson shook hands and then shook dice for the choice of position, the moving picture gents inviting the crowd onto the track in order to add "life" to the scene.

After a fake start, for the benefit of the picture machine, the "race" was run in two five miles heats. Oldfield drove a Knox and the darky a Thomas. In the first heat the white man ran away from his "rival,"

and when Oldfield drew up after his "brilliant victory" he provided another picture with which the public will be humbugged.

"Everybody come out here and give the champion a big reception," he yelled to the spectators, several hundred of whom responded to the invitation. "Now lift him on your shoulders and carry him around and the rest of youse laugh and wave your hats," was the next command; and there were enough of the "easy marks," plus some hired men, to do even this bidding.

Having "conquered" the conquerer of Jeffries, Oldfield will now become an "actor" just like Johnson. He will go on the stage at any rate, and do a home trainer stunt on a vaudeville circuit. It has not yet been made known which set of moving pictures will be used during his act—whether the set taken during Tuesday's burlesque "race" or a set which is reported to have been taken several days before when Oldfield and Johnson are said to have engaged in a "close and thrilling race," while following in the wake of a moving picture machine mounted in a touring car.

**GEORGIA'S AROUND STATE AFFAIR**

**Lasted Ten Days and Awakened the Countryside—Free and Easy Competition  
but Method of Scoring a Puzzle.**

They've been marching through Georgia again. They started on October 17th and they finished the march last night. "They" were the parties contained in automobiles who were rounded up by three of Georgia's leading newspapers and, of course, they themselves did not call it a march. The affair was the "Around-the-State tour."

The Georgia newspapers are rather strong on affairs of the sort. Apparently whenever they desire to "start something," or when time is hanging heavily on their hands, they promote an automobile function of some kind into which the element of competition also enters; it entered into the tour which ended in Atlanta last night, but just where it entered and where it came out is more or less of a puzzle.

There was a referee—that's sure. He was the Honorable John M. Holden, Speaker of the Georgia House of Representatives. It also is certain that the tourists signed a book recording their arrival, and the time of their arrival each night, and in due course it is presumed that the Honorable Mr. Holden will examine the book and make known the results.

On the face of the returns, however, it appears that the only penalties which were imposed were penalties of 50 points each, which were tacked on to two cars which committed the grievous offense of passing other cars on the road, but at the time it was explained that if the offense was not repeated the penalties would be remitted.

As a tour pure and simple, however, the affair was quite "some pumpkins." Simultaneously, on the 17th, parties of tourists started from Atlanta, Macon, Albany, Bainbridge, Valdosta, Waycross and Augusta, the largest crowd, of course, being from Atlanta, where the most prominent of the promoting newspapers is located. These several groups chased each other, so to speak, around an irregular circle indicated by a line drawn from Atlanta through Griffin, Barnesville, Macon, Fort Valley, Ellaville, Albany, Moultrie, Pelham, Bainbridge, Thomasville, Valdosta, Douglas, Waycross, Reidsville, Savannah, Statesboro, Waynesboro, Augusta, Washington, Athens, Winder and back to Atlanta.

Touring through that part or any other part of Georgia is not exactly what may be termed a dream. While there are quite a few good miles of road in the Cracker State, there are many, many more miles that would insult the words "good" or even "half good" were they applied to them. The tourists encountered all sorts. They had a lovely time on the good roads; they had

## THE MOTOR WORLD

### ONLY NINE WENT TO RICHMOND

And None Returned with Perfect Score—  
Newspapers' "Endurance Tour" Falls  
to Arouse Much Interest.

a wholly different kind of a time on the others, some of which are closely related to bogs. Not a few of the cars sank up to their hubs in the mud, and there was frequent cause for the exercise of brotherly love which is marked by a towrope and a helping hand.

The newspapers involved, however, made airy trifles of such troubles and created such a general hurrah that the tour appears to have been "one grand sweet song." Certainly it excited even more interest than a circus. Every town on the route turned out en masse and extended what in the vernacular is termed "the glad hand," when nothing more substantial was extended.

The names of the drivers of the cars appears to have mattered little. The names of the owners or entrants and of the occupants were of more importance. There was one young woman, however, who drove a car, Miss Regina Rambo, of Marietta, who handled the steering wheel of a Columbia, and her name was mentioned many times and oft. She appears to have been the heroine of the tour and when she was not pelted with flowers she was presented with bouquets of them.

Not a few of the cars were entered by the local boards of trade and chambers of commerce which thrive in Georgia, and in addition to sampling the diversified roads they scattered advertising matter booming their respective neighborhoods.

Taken as a whole, however, it was a great affair—in Georgia—and when the referee figures out the score and accompanies it by the necessary diagram, its worth as a competition will be made so plain that all may see.

The Atlanta party, which was by far the largest of the tour, was as follows:

Ohio, Ohio Motor Car Co.; Columbia, Maxwell-Briscoe Southern Co.; Primo, Primo Motor Co.; Primo, R. E. Henderson; Franklin, W. D. Alexander; Columbia, Southern Ruralist; White Steamer, Edwin P. Ansley; Overland, St. Elmo Massengale; White Star, Atlanta Motor Car Co.; Selden, Southern Bell Telephone Co.; Cole "30," Long Henderson Motor Co.; Hudson, Atlanta Gas Light Co.; White (gasolene), Atlanta Journal; Everitt "20," Phil Cook; Abbott-Detroit, Abbott Motor Co.; Firestone-Columbus, Columbus Buggy Co.; Overland, Overland Southern Motor Co.; Mitchell, Georgia Auto Exchange, of Columbus; Overland, Baughman Auto Co.; Haynes, Mrs. John Keiley; National, Dolph Walker; Olds Special, Z. W. Oglesby; Buick, George W. Deen; Brush, Georgia Motor Car Co.; Overland, B. R. Beck; E-M-F, Dr. H. L. Rudolph; Pullman, Atlanta Constitution; Hupmobile, Georgia Auto Exchange; Hupmobile, M. R. Flourney; Ames, Ames Motor Co.; Case "30," J. I. Case Threshing Machine Co.; Thomas Flyer, Charles O. Duvall; Maxwell, Athens Chamber of Commerce; E-M-F, Winder Board of Trade; Cadillac, Hall Miller.

Apparently the Washington (D. C.) trade is beginning to grow weary of newspaper-promoted "reliability contests" and "endurance tours." At any rate the Washington Post's affair, denominated an "endurance tour," which ended on Tuesday last, 26th inst., was a peewee event; it attracted only nine entries, representing but five makes of cars. The route was from Washington to Richmond, Va., and return, about 500 miles. The contest started Friday, the 21st. The first night was spent in Staunton, Va., the second night and all of Sunday in Richmond, and Monday night in Warrenton, 65 miles from the capital.

The starters were as follows: Harry Walls, Maxwell; Bert Robinson, Maxwell; Howard Wagner, Columbia; Gary Carter, Washington; M. E. Arrison, Washington; Griffin Halstead, Washington; Irving Barber, Parry; Stanley Mortimer, Buick; Ward Angle, Buick.

None of the cars finished with a perfect score. Gary Carter, however, came near to one. He had a clean record until the last day, when he stalled the motor of his Washington car, of which he is the manufacturer, and thereby lost one point. Walls, in the Maxwell, was the runner-up. On the third day, he, too, had stalled his engine while fording a stream and also got water in his carburetter, which stop and difficulty cost him three points. The fight, such as it was, was between these two men, Carter and Walls, and unless their positions are upset by the technical examination, which was interfered with by rain, their standing is one, two.

Four of the nine cars were penalized on the first day. Halstead's Washington dropped into a hole near Purcellsville, Va., and broke a front axle; another one was telephoned for and the damage was repaired and the car rejoined the party the next day, although out of the contest, its accident having cost 925 points. Arrison stalled his engine in avoiding a collision with Halstead, when the latter dropped into the Virginia mudhole, and thereby lost one point. Both Buicks also were debited, Mortimer 14 points and Angle one point, for time spent in adjusting their sight feeds.

On the second day a heavy rain rendered a portion of the road almost impassable, only Carter and Walls negotiating it without penalty. Mortimer's Buick got stuck in the mud and lost 50 points. He was the heaviest sufferer; the other Buick lost eight points. Going into Richmond that night, W. D. West, the referee, was thrown from the Parry car, in which he was a passenger,

and narrowly escaped being killed when the car ran into a fence in the dark. Barber, the driver, had suffered a blow-out and was making up lost time when the accident occurred. None suffered more than bruises, however, and broken headlights and a bent axle was the only damage the car sustained.

Leaving Richmond on Monday, the cars headed for home via Louisa, Gordonville and Orange. The chief incident of the day was Walls' fall from the perfect score class when he stalled his motor in mid-stream. Halstead (Washington) and Robertson (Maxwell) also stalled their engines, the former doing it three times; such stops entailed debits of one point for each. Wagner in the Columbia was the heaviest loser. He dropped 21 points for working on his transmission due to inability to get it out of low gear.

On the last day, the short run of 65 miles into Washington spoiled the only remaining clean score—that of Garry Carter, who, as previously stated, stalled his engine.

### Frisco Forms Racing Association.

Somewhat on the lines of the Motor Cups Holding Association, which is responsible for the Vanderbilt and other races over the Long Island Motor Parkway, a racing association has been formed in San Francisco, Cal. Its purpose is to perpetuate the Portola road race or another big road race on January 1, 1911, over a course to be decided later, but which probably will be over the Haywards boulevard in Alameda county. The officers elected at the meeting were: William M. Klinger, president; A. J. Smith, vice-president; E. T. Sterling, secretary-treasurer; Frank Carroll, assistant secretary-treasurer, and Max Rosenfeld, chairman of the board of governors.

The local dealers who took an active part in the formation of the automobile racing association were as follows: B. H. Pratt, Fisk Rubber Co.; John J. Doyle, Pope-Hartford; George E. Hoyt, Fireman's Fund; E. N. Merguire, Fisk Rubber Co.; A. D. Nichols, Weinstock-Nichols Co.; John W. Swan, representing Leon T. Shettler; R. C. Kennedy and A. D. Whitehead, Marmon; W. M. Klinger, Fireman's Fund; F. J. Linz, Maxwell and Columbia; Dick Ferris, promoter; Max Rosenfeld, Apperson; W. H. Middleton, Alco; T. W. White, Warren-Detroit; F. G. Bierlein; A. J. Smith, Elmore; E. T. Sterling, secretary San Francisco Motor Club; J. A. Marsh, Pierce Arrow, president Auto Dealers' Association; J. O. Stewart; A. E. Morrison, Cadillac; C. S. Bougher and Harry Michener, Simplex; C. S. Richardson, Knox; Frank E. Carroll, Monogram Oil; Ivan L. de Jongh; E. P. Cooper, Alco; R. K. Roberts, Buick; F. G. Becker, Oakland; H. A. Bubb, Medford, Oregon; George P. Moore, Monogram Oil; R. F. Harrington; W. C. Morris, Autocar; Hazlitt L. Pelton, Stewart Speedometer.

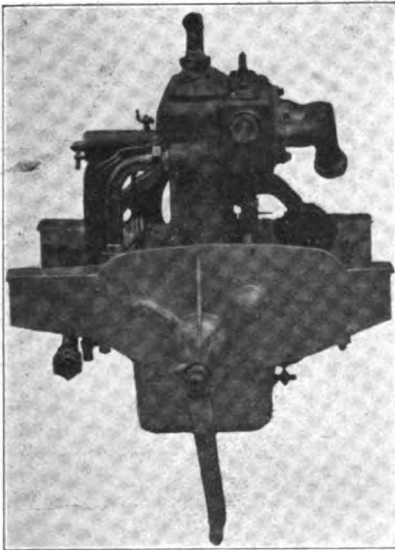


**NEW S. G. V. SUCCEEDS OLD ACME**

**The One Bears Small Resemblance to the Other—Newcomer Full of Good Features.**

Old companies have brought out new cars, but usually they have attached the old name to their new product. When, however, the Acme Motor Car Co., of Reading, Pa., decided to reconstruct its line, it not only evolved an entirely new car but it applied a new designation to it. The Acme company's models no longer are termed "Acme," but "S. G. V.," which initials stand for the names of the officials responsible for

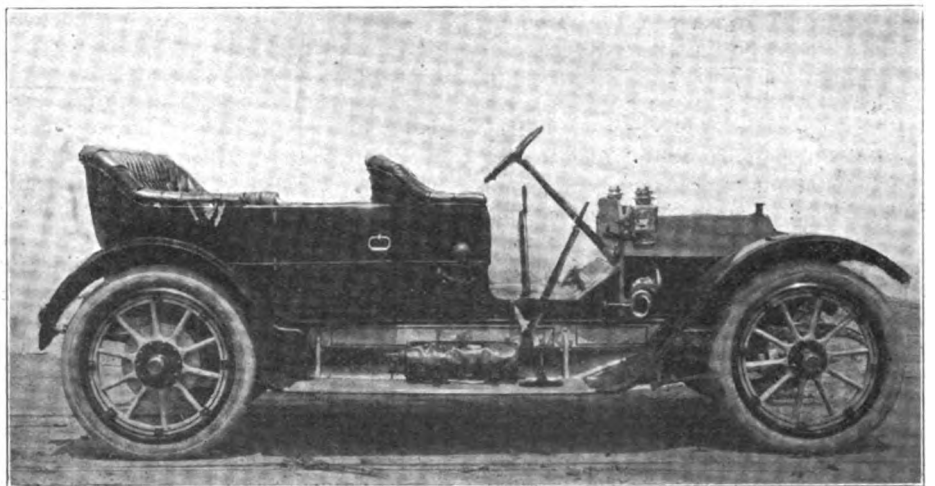
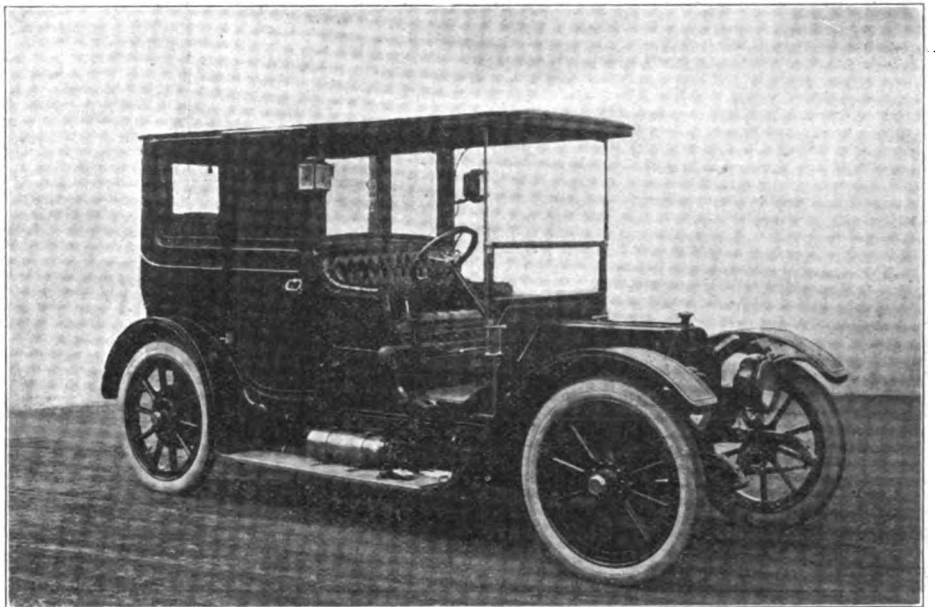
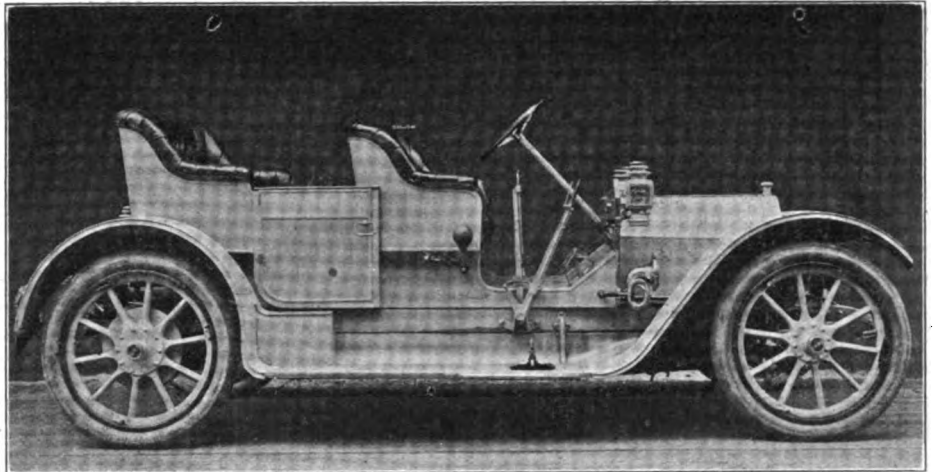
hardware, are of special design to match and add to the general appearance of the inside the body. All fittings, which usually are brass finished, such as the steering



FRONT VIEW S. G. V. MOTOR

the new car, viz.: Messrs. Sternberg, Graham and Vantine. Work on the S. G. V. was commenced more than a year ago, the best practices both at home and abroad being drawn on in the effort to attain the highest possible standard. The months of study and preparation were followed by months of road tests, and these factors combined with an output limited to 300 cars, have resulted, the manufacturers confidently assert, in a model that places the S. G. V. in the "select" class. It is founded on a single chassis having a wheel base of 116 inches, which with the several body designs affords a two passenger, four passenger close-coupled car, a five passenger touring car and a five or six passenger limousine or landaulet.

In working out the details of finish and equipment of the car great pains have been taken. Curved mud guards webbed to the frame by aprons between the running boards and body, protect the occupants of the car, and all moving parts are amply protected by the use of a long sod pan underneath. The bodies are built of sheet aluminum throughout with ash frame. All equipment, such as lamps, horn and body



THE NEW S. G. V. FOUR-PASSENGER CLOSE-COUPLED TOURING CAR  
SIX-PASSENGER LIMOUSINE MOUNTED ON SAME CHASSIS  
THE FIVE-PASSENGER S. G. V. TOURING-MODEL

car. One original feature is the method of mounting the horn tube, which is placed wheel and levers, are covered with hard rubber. All lamps may be enameled to con-

form to the color scheme of the body, or to suit any individual taste. The dash is of Circassian walnut, and with the exception of a small meter, indicating oil pressure in the lubrication system, is clean. The foot and toe boards are of cast aluminum. On the right side is the tire bracket and holder, integral, and arranged so that when not in use it may be folded down against the body of the car.

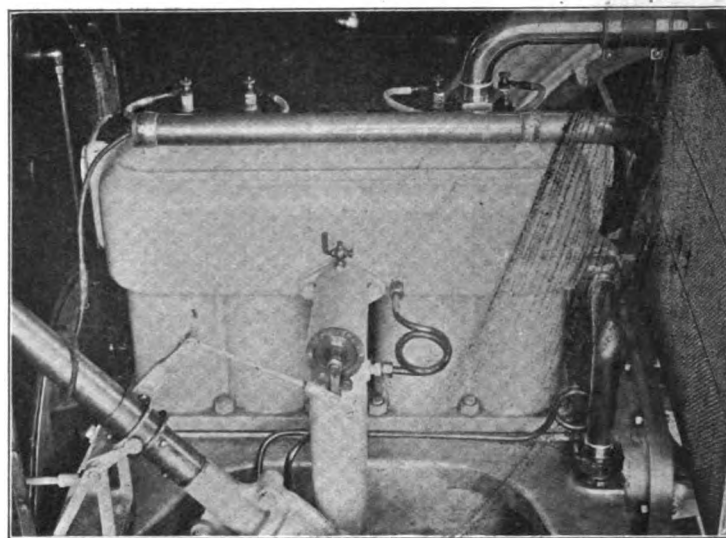
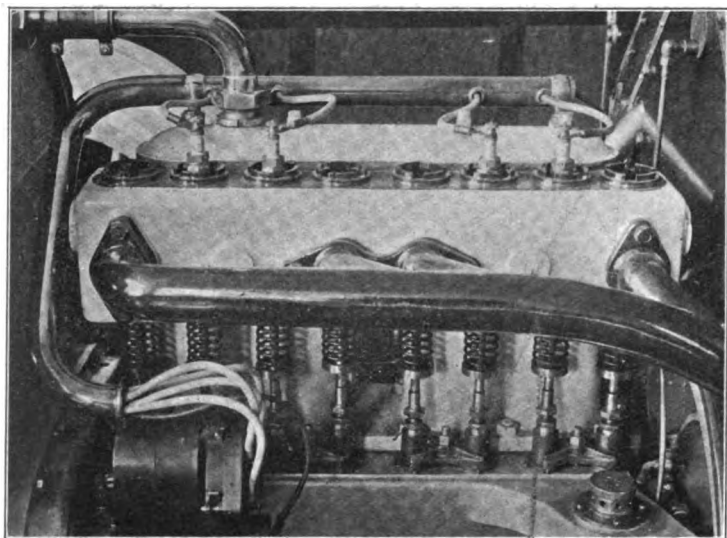
The S. G. V. motor is rated at 25 horsepower, and is of 4 cylinder form, with cylinders cast en bloc. The dimensions are  $3\frac{3}{4}$  by  $3\frac{3}{8}$  inches, with integral inlet manifold. The water jackets are exceptionally large, and as water is circulated around the valve stem guides it insures cool valves. The

ing, so that the motor is practically proof against the smoking evil.

For the ignition a Bosch magneto with fixed spark is used, eliminating the usual spark lever in the wheel, the spark advance being obtained as the motion increases in speed. Cooling is accomplished by means of a cellular radiator and a centrifugal pump.

The frame is of cold pressed chrome nickel steel, heat treated after each pressing operation. Both the upper and lower flanges of the channel section are very wide, and the frame is raised over the rear axle, giving low center of gravity, but allowing plenty of road and spring clearance. The frame narrows toward the front, allowing

of which are drop-forged. All four wheels are 34 inches in diameter, shod with 4 inch tires on demountable rims. They are of second growth hickory and the spokes are short and heavy. The springs are manufactured by the French maker, Lemoine, the front ones being semi-elliptical, 35 inches between centers, and the rear ones three-quarter elliptical, 44 inches in length. The control is by means of clutch and service brake pedals, with the levers for gear shifting and emergency brake located conveniently at one side. The engine is regulated by a finger disc on the steering wheel and by an accelerator pedal. The steering gear is of the worm and gear type. The wheel is of aluminum covered



LEFT AND RIGHT SIDES OF THE NEW S. G. V. 25-HORSEPOWER HIGH-SPEED MOTOR

pistons are finished by grinding and are very light in weight. The pistons have three rings, one of which is an oil ring. The wrist pins are secured in the bosses by two set screws, jam nuts and cotter pins. The connecting rods are of I-section vanadium steel drop forged, and the bearings are Forest bronze boxes with Fabrig metal inserts. The crank shaft is cut from a solid nickel steel billet, properly treated, and the bearings are of the same metal as those in the connecting rods. The bottom part of the crank case acts merely as an oil reservoir. The fly wheel is a steel casting and has fan spokes, eliminating the need for any other fan. The center of the fly wheel forms a housing for a multiple disc clutch.

Lubrication is obtained by means of a gear pump, driven from the rear end of the cam shaft. This pump draws the oil from the lower crank case and forces it to the main crank shaft bearings through integral passages in the case, through ducts in the crank shaft to the connecting rod bearing, then through a tube to the wrist pin bearing. A specially designed safety valve and by-pass keep the oil at constant pressure. The system is so arranged that it is thoroughly insured against over-feed-

ing the motor and transmission to be mounted upon it, thus doing away with the sub frame. This also permits the car to turn in a much shorter space.

The clutch, which is mounted in the fly wheel, is of the multiple disc type, having 36 steel discs running in oil. The clutch shaft which transmits the torque is mounted on ball bearings.

The transmission is of the selective type, giving four speeds ahead and one reverse, direct on fourth speed. All gears are of nickel steel. The service brake drum is attached to the direct drive shaft. The rear axle is of the semi-floating type, and runs on annular bearings. The differential is of the four bevel pinion pattern. The standard gear ratios are relatively low for normal car speeds, an arrangement which is made possible by the high speed of the motor.

In addition to the service brake acting on the driving shaft, which consists of two shoes controlled by a differential screw mechanism, two other brakes serve for emergency purposes. They are of the expanding type, operating in rear wheel drums under control of the side lever. The front axle is a channel section form of chrome nickel steel, heat treated, the ends

with hard rubber and contains at its center a short circuiting button for cutting out the ignition.

#### Denmark Now Offers Better Opportunities.

Many regulations favoring motorists have been passed recently in Denmark; public roads formerly inaccessible to automobiles have been opened up and a more liberal policy has been inaugurated, which should mean increased sales of motor vehicles in Denmark, writes Consul-General Wallace C. Bond, of Copenhagen, in a report to the Department of Commerce and Labor. At present practically all automobiles used in the country are imported, as there is only one factory in the kingdom, a very small concern, which turns out delivery cars chiefly. There should be a good market here for small runabouts, to be used by professional men, which would cost not over \$750, and a good opportunity presents itself for the building up of a substantial trade in delivery cars and motor trucks. There is a limited market for the larger and more expensive touring cars. The machines in general use here are from 10 to 20 horsepower. The import duty on automobiles is very low, viz., 2.68 cents per 2.2 pounds.

**NEW WAVERLEY HAS SWELL FRONT**

**Which Lends It Distinction—Other Models Have New Lamps, Fenders and Equipment—Mechanism Unchanged.**

It is somewhat remarkable how quickly a point of stability was reached in the design of electric vehicles. Gasolene cars now have reached a point where such of them as are produced by reputable and cautious manufacturers require very few changes in successive models, but this has been true of the electric for several years. The power plant of the Waverley line, for example, at present is in its third year of

been changed. The maximum speed is 25 miles an hour, and the mileage capacity per charge has been made adjustable according to the requirements of the owner; if more than 100 miles per charge is required, the Waverley Co. is prepared to furnish Edison battery equipment, at additional expense.

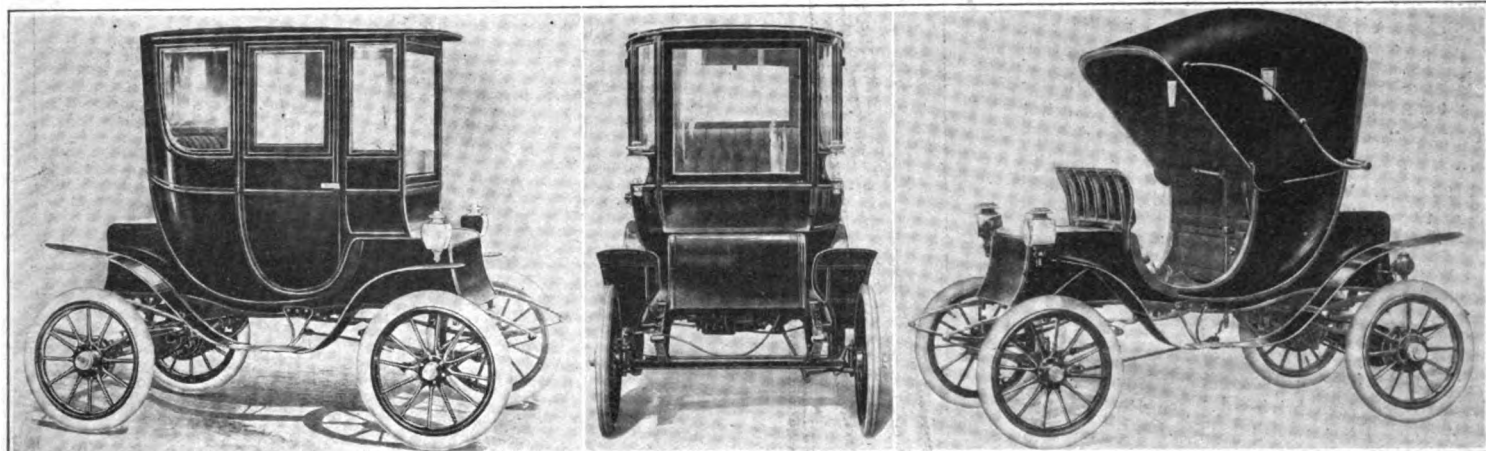
In the case of model "75-C," the second of the two four-passenger brougham offerings, considerable improvement in appearance and serviceability has been effected by the adoption of a new form of spring suspension. Such is the nature of the new arrangement that the frame sill is brought two inches below the tops of the full elliptical springs. By lengthening the forward fenders somewhat and adopting new style lamps the car's appearance is altered.

**CAUSES FOR POOR COMPRESSION**

**Faults, Small in Themselves, to Which Large Losses of Power May be Due—Indications and Remedies.**

When a car is taken to the repair shop for examination as to the cause of loss in power, the man who does the repairing frequently finds this loss of power to be due to "poor compression."

It is assumed, of course, that every motorist knows what is meant by compression, i. e., the drawing into the cylinder of a charge of gaseous mixture by a stroke of the piston in its downward travel, and the



IMPROVED WAVERLY BROUGHAM "75-C"

NEW MODEL "81"

VICTORIA PHAETON MODEL "76"

manufacture, and since its introduction it has undergone practically no change.

In announcing its new line the Waverley Co., Indianapolis, Ind., has disclosed but one strictly new model. This is a four-passenger brougham, known as model "81," resembling in many ways model "75," produced last year, but differing from it in several important respects. Thus the body is built in a single piece, three inches wider, the front has swelled side panels with rounded quarter set with French plate glass, and the general effect of the car is roomier and more luxurious. This effect is heightened by sundry improvements in appointment, such as the installation of two toilet cases, a flower vase, umbrella holder and shaft driven odometer.

Next to this car in point of newness is the Waverley roadster, which was introduced last year in a tentative form, but which has since been altered in several points. It is designated as model "78," and it is made in exact semblance to a gasolene roadster, possessing the same praiseworthy qualities of long wheel base, easy suspension and comfortable seating. The body is very low hung and is provided with a rear rumble seat. The total length of the vehicle has been increased to 114½ inches, the wheel base having been increased to 96 inches. The shape of the cape top also has

Practically the same changes as have been applied to the second brougham have been adopted in the remaining models of the line. They include the coupe, model "70-C;" Victoria-Phaeton, "76;" and the Stanhope, model "74." In the case of the runabout, model "69," however, a continuous fender has been substituted for the separate wheel guards previously used.

The mechanical equipment includes the original pattern of shaft drive with herringbone gears that was developed by the Waverley engineers two years ago, and which consists of a flexible shaft transmission between two pairs of herringbone reduction gears; the knife-blade contact form of controller and such protective arrangements as are necessary to provide against starting the car inadvertently or except on the low speed connection, and to prevent reversing with the power on.

In the matter of prices the new model "81" stands at the head of the list, its cost being \$2,600. Contrary to erroneous announcements, the list quotations on the other models have not been advanced, but stand at \$2,400 for model "75-C;" \$2,150 for model "7-C," as a two passenger coupe with 32 cells of battery; \$1,850 for the Victoria-Phaeton, model "76," with 32 cells of battery, and \$1,700 for the roadster, model "78."

compression of it by the next upward stroke into a space approximately one-fourth of the cylinder's cubic capacity, ready for its ignition and expulsion during the two succeeding strokes of the piston. This compression naturally gives the gases greater rebounding, expansive or explosive properties when ignited by the electric spark. It is in this manner that the power of the engine stroke is produced. It follows to a great extent that the power of the engine depends largely upon the extent to which the gases taken into the cylinder are compressed—that is, upon compression—though the number of revolutions which the crank shaft makes per minute also varies the power.

Indications of poor compression are the loss of speed, inability of a car to climb grades as easily as before or a decrease in the amount of resistance to the starting crank. Loss of compression is often due to bad valve seatings. The exhaust valve is liable to give more trouble in this respect than the inlet valve, as it has more work to do and has to withstand a great amount of heat subjected to it by the outrushing exhaust gases at the completion of each power stroke.

Leaky pistons are exceedingly wasteful of power. In closed base motors, such as the two cycle or in multiple cylinder types,

it is not always easy to determine where or what is the cause of the trouble. Ill fitting rings, scored cylinder walls, scratched piston walls or rings stuck to the cylinder by carbon will cause leaks past the piston. If these are allowed to go unrepaired for a time, much more serious damage results, often necessitating reboring and fitting of new piston and rings. These leaks not only allow the escape of the expansive gas, but also cause the oil to dry up along the overheated parts of escape.

Leaks caused by poorly fitted piston rings may be found by the presence of a dark colored section along their circumference. A perfectly fitting ring will always appear bright and smooth in its entire circumference. Those that are bright only in spots touch the cylinder only at those places. Therefore either the cylinder bore is not true or the rings are not perfectly round. It is obvious that a ring cut larger in diameter than the piston, having a section cut out, and then pressed together—there are such rings made—is not a perfect circle, but somewhat elliptical, and the ring will touch the cylinder only near the cut. Such ring construction is decidedly injurious and will wear the cylinder walls unevenly. After rings are cut they should be so clamped together as to allow their centering again in a lathe and being returned to a true circle.

Explosive force is sometimes lost because of the inaccurate boring of a cylinder. By the dulling of the tool as it cuts from one end, it may leave the end when the cut is finished smaller than the other. Consequently the piston and rings will not fit each end of the cylinder.

Next to imperfectly fitting rings or unequal cylinder diameter, a ring clogged or "stuck" from a poor quality of lubricating oil, or from the too free use of oil, will give the most trouble. The burnt carbon adheres to the rings, causing them to stick tight in their grooves and become incapable of pressing against the cylinder walls. Kerosene injected into the cylinder sometimes will cut away this carbon, but often it is necessary to remove the piston and rings and thoroughly clean them by first saturating with kerosene and then scraping them. The grooves in the piston should be cleaned before replacing.

Loss of power might result also from the presence of a sand or blow hole in the piston casting, and from punctures made by pieces of loosened metal such as piston ring pins or spark plug points.

#### Why Shock Absorbers Require Inspection.

Shock absorbers should be inspected occasionally to see that the fixtures by which they are secured to the frame and axle, respectively, have neither loosened nor bent, and that the connecting members have not been worked out of shape. If the device is incorrectly mounted it is liable to work improperly, thus interfering with the free movement of the springs.

#### Franklin Produces a Special Speed Car.

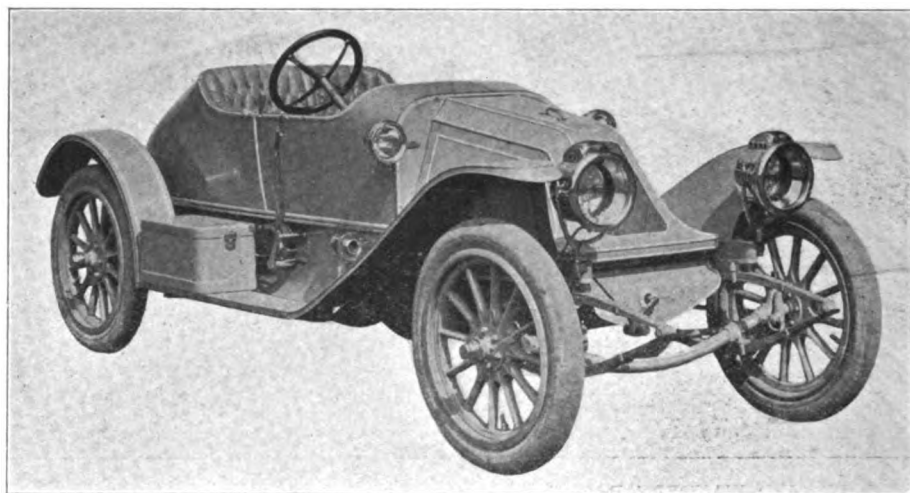
Having decided to produce a limited number of special speed cars, the H. H. Franklin Mfg. Co., of Syracuse, N. Y., already has delivered the first one to Ralph C. Hamlin, of Los Angeles, Cal.

The new car, as shown by the accompanying illustration, is a two-passenger, turtle-back torpedo-phaeton with high doors and flush sides. The motor used is a four-cylinder Franklin, air-cooled, with four-inch stroke and bore. Its construction, of course, is the exclusive pattern in which air, under induced draught, is circulated through "chimneys" surrounding the cylinders. The tire equipment, in accord with Franklin practice, is large, both

700 miles before the shoe was discarded, and that upon a 3,500-pound car. Used in a new and unfractured casing, it is claimed that the life of the shoe would be increased by about 40 per cent.; the incidental effect of the reinforcement being to add to the resilience of the equipment.

#### Duryea Speaks for Side Starters.

"The Motor World's account of the tragedy caused by cranking with the clutch engaged seems to point to several 'obvious morals,'" writes the veteran Charles F. Duryea. "It is well to say that one should be sure the gears are not in mesh before cranking, but it is well known that everybody forgets sometime or other, and it



THE FIRST OF THE FRANKLIN SPECIAL SPEED CARS

front and rear tires being 34 by 4½ inches in size, giving a wide margin of safety in the capacity of the tires over the load put on them. This car weighs but 1,900 pounds. It has a wheel base of 115½ inches.

#### Thermoid Brings Out Tire Reinforcement.

An old leather bootleg, hacked into shape with a penknife, is the primitive form of repair patch for a blown-out tire casing. Through successive stages, the prepared and vulcanized patch has progressed, under the influence of experience, until the present time. Developed from the simple patch, but elongated sufficiently to extend around the entire casing, the Thermoid Rubber Co., of Trenton, N. J., has just produced a new style of tire reinforcement, which is calculated to prolong the life of a tattered casing by many miles and, incidentally, to eliminate the bootleg for all time.

The reinforcing strip, which is shaped to fit the interior of the casing, is composed of a continuous fabric envelope into which an elastic rubber solution is inserted by a secret process, as it is explained, prior to vulcanizing. Tests with the reinforcement in one case, when applied to a casing in which there were no less than three holes, sufficiently large to admit a man's head, revealed an extra service of no less than

seems rather severe that the penalty of this forgetfulness should be a run-over.

"I would like to suggest that the remedy is a simple one and that it would be quickly supplied if buyers insisted, viz., to crank from the side. The control levers are at the side of the car. The throttle and spark controls are there. The sight of a man chasing back and forth from front to side is not an impressive one, but it often is seen when the car is at all refractory about starting. And there are other reasons. Cars are or should be stopped with the right side to the curb. This lets the passengers out on the clean curb instead of out in the muddy street. Ninety-five per cent. of our streets and roads are not good. The street sprinkler keeps even the good ones too wet for clean feet. And every year as the cars get lighter and more capable they are used in bad weather more and more.

"It thus will be seen that the side is the place for the starting crank. The driver is at the side before entering and he can crank without chasing around in front and getting his feet muddy as well as getting away from his car control. The early rigs had the starting crank on the side and those who have used them know how much more convenient they were than the now common front position."



## PROOF AGAINST ALL CLIMATES

**Stewart & Clark Make Ingenious Provision  
for Changes of Temperature—Its  
Effect on Speedometer.**

For the purpose of compensating errors due to differences in atmospheric temperature, the Stewart & Clark Manufacturing Co., Chicago, has installed a new element in its so-called multi-polar speedometer which results in increasing the accuracy of the instrument by a considerable amount. As was described by the Motor World in its issue of May 26, 1910, the effect of variations in temperature upon speed indicating devices which depend upon the magnetic principle results from a change in the electrical resistance of the non-magnetic or stator element. As the electrical resistance of this part varies, its response to the "drag" of the magnetic or rotor element is proportionately affected. The compensating arrangement which has been introduced in the Stewart instruments is calculated to offset this effect by altering the position of the relatively stationary element by a very slight amount and thereby influencing the drag of the magnet in the opposite sense.

In the accompanying illustration the instrument is shown partly in section and partly in shadow to indicate the relative position and effect of the new compensating device. The essential organs of the instrument are the driving shaft E which causes the rotor R to turn by means of the bevel gearing F, and the stator K, which is in the form of an inverted aluminum cup which covers the top of the magnetic ring D and surrounds its periphery in the annular space between the magnet and the protecting shell Q, which revolves as a unit with the magnet. A prolongation of the shaft J, upon which the cup is mounted, carries a pointer that swings over the dial P. In ordinary operation, as probably is pretty generally understood, the rotation of the magnet has the effect of generating electric currents in the body of the cup, thereby causing it to rotate through a very small angle against the resistance of the spring N.

The compensating device depends for its action upon the expansion and contraction of the outer casing of the instrument. A lever system, shown in phantom at S, is mounted in a heavy frame in the base of the instrument in such a manner that the contraction of the case A-B, when cooled, will move the levers and raise the lower bearing I, in which is mounted the shaft J of the aluminum cup K. This causes the cup to be slightly displaced in the field of the magnet D and has the effect of diminishing the drag of the magnet by a very slight amount.

As the effect of cooling the cup is to decrease its resistance and thereby to increase the flow of current, however, the displacement of the cup merely tends to correct a tendency that otherwise would result in a reading higher than that corresponding to the exact speed. Thus as the case expands and contracts with changes in temperature, the very minute upward and downward movement imparted to the stator in consequence has the effect of compensating for the effect of the same temperature changes on the cup, and so renders the indications of the instrument essentially correct.

Following the adoption of the compensating device in the 1911 Stewart models,



NEW STEWART COMPENSATING DEVICE

the Stewart instruments were subjected to a test similar in its nature to that by which the magnetic type of speedometer originally was shown to give erroneous readings under extreme temperature variations. The instruments to be tested were encased in wooden boxes, which, in turn, were enclosed in larger boxes, the latter being adapted to be filled with ice and salt, to obtain a cooling mixture; or with hot water, to raise the temperature of the instruments. The driving shafts, which were passed into the boxes through tubes, were geared to a shaft driven by a variable speed friction transmission, not unlike that employed in certain motor cars. The actual speed of the shafts was obtained by means of an electrical contact breaker which served to commutate an alternating current and thus to permit the speed to be ascertained by the use of a frequency meter. As a check, an ordinary revolution counter and watch are employed.

Three Stewart instruments, each equipped with the temperature compensating device were tested by this means, and also three instruments of another make, not compensated for temperature variations, but which, in the original test made last spring, had shown the same sort of error as the Stewart, though in smaller magnitude. The six instruments were tested in pairs at tem-

peratures ranging from 17.6 to 131 degrees Fahr., and the speeds which they indicated compared with the actual speeds calculated from the frequency meter indications.

In the case of the three compensated instruments the average errors were 5.9, 5.9 and 4.3 per cent. out of the way respectively. The average errors in the case of the uncompensated instruments were, respectively, 17.5, 23.0 and 28.2 per cent. The actual variations in miles per hour of the readings ranged from .3 to 3.7 in the least accurate; while in the uncompensated device the greatest range of error was from 2.8 to 13.3 miles per hour.

## "Duralumin" for the American Market.

Persistent efforts to develop an aluminum alloy possessing sufficient strength and elasticity to render it in any way comparable with the heavier metals have been rewarded in the new metal "Duralumin," a German product for which great hopes are entertained. After having been favorably received abroad, the introduction of the metal to the American market has been undertaken by the firm of Marburg Brothers, of New York City.

It is a magnesium aluminum alloy, and while its specifications are not declared, it is said to be of about 90 per cent. aluminum with small additions of other metals, mainly magnesium and copper. From the fact that some of the ingredients are heavier and others lighter than aluminum it follows that the resulting weight is practically the same as that of aluminum itself. Its appearance also is much the same, but it has the advantage of retaining its luster unaffected by the atmosphere; it also resists the corrosive influence of salt water, which is one of the claims that has led to its experimental adoption in marine construction.

Varying with the mixture and treatment its ultimate strength is said to run from 50,000 to 85,000 pounds per square inch. Soft plates of about 1/4 inch thickness are quoted as having the following properties.

Alloy No. 1—Specific gravity, 2.77; elastic limit, 26,000 lbs. per sq. in.; ultimate strength, 50,000 lbs. per sq. in.; elongation, 21 per cent.; contraction, 34 per cent.

Alloy No. 2—Specific gravity, 2.84; elastic limit, 36,000 lbs. per sq. in.; ultimate strength, 65,000 lbs. per sq. in.; elongation, 18 per cent.; contraction, 26 per cent.

By rolling, the No. 2 alloy can be made to show the following characteristics:

Elastic limit, 74,000 lbs. per sq. in.; ultimate strength, 85,000 lbs. per sq. in.; elongation, 3 per cent.; contraction, 10 per cent.

It is thus to be compared roughly with low carbon steel when annealed, the properties of the two metals being much the same both before and after rolling. At the same time its weight is only about one-third as great. Duralumin can be rolled cold or warm and also can be forged or drawn. It melts at 1,200 degrees Fahr.

## IMPROVING THE LEAD BATTERY

Lecturer Forecasts Appearance of a New Type—Explains Distinction Between "Acid" and "Alkali" Types.

Although it is not generally known, the Electric Storage Battery Co., of Philadelphia, Pa., manufacturer of the well-known Exide batteries, for some time has been developing a new and very radical type of plate construction which is calculated greatly to prolong the life of the battery, also eliminating the necessity for frequent cleaning in order to remove deposits of sediment. That the Storage Battery company is about to place such a battery on the market was revealed by Bruce Ford, who is connected with the company, in the course of a paper read before the Electric Vehicle Association of America, at its first annual convention in New York City last week. The Ford paper also has the merit of presenting a clear and concise explanation of the fundamental distinction between the acid and alkaline battery types, of which the ordinary lead cell and the new Edison battery, respectively, are familiar examples.

"Although primary batteries have been used to a small extent experimentally as the motive power of electric vehicles, the storage battery is the recognized standard for this purpose," said Mr. Ford. "Storage batteries may be divided into two classes according to their electrolytes; first, that having an acid solution; second, that having an alkaline solution. Neutral salt solutions although employed to a large extent in primary batteries never have been used successfully in storage batteries. Where alkaline solutions have been employed the electrolyte has invariably been a solution of caustic potash. The electrodes used with the alkaline solution have been various metals and oxides, such as copper, silver, nickel or cobalt in the positive pole electrode, and zinc, cadmium or iron, in the negative pole electrode. In some batteries of this class metals are permitted to go into solution, although such batteries are not now being commercially exploited, and the alkali batteries of today are constructed with insoluble materials in both electrodes. The Edison and Jungner batteries are the most familiar examples of this type.

"In the acid battery, although various solutions have been proposed and tried, dilute sulphuric acid is the recognized commercial standard for the electrolyte. Soluble electrodes, although at one time consistently exploited, have been abandoned in favor of insoluble electrodes, and the recognized standard material in both positive and negative plates is now lead. The lead cell is the oldest commercial form of storage battery, dating back to 1860. Although

the principles involved in the lead-sulphuric acid battery are the same as when it was originally brought out, yet the methods and results obtained have been the outcome of exhaustive experiments, some of which are still in progress, while many new experimental lines are being continually developed. The lead-sulphuric acid battery has characteristics of high and uniform individual cell voltage on discharge combined with low internal resistance and high watt-hour efficiency which render this type of cell peculiarly adapted to the needs of electric vehicle propulsion where high currents are required for acceleration, hill climbing and bursts of speed.

"The nickel-alkali-iron battery, on the other hand, has a high capacity per unit of weight which makes it attractive where an abnormal amount of mileage is required per charge. The manufacturers of this battery also claim a very long life. The battery is new in commercial operation, and therefore no definite commercial figures have been obtained as yet to substantiate this claim. High internal resistance and high initial cost are among its disadvantages.

"In the present standard type of lead cell the capacity per pound can be varied within certain limits by furnishing plates of different thicknesses. A thicker plate has a longer life in number of cycles of charge and discharge than a thin plate, but its capacity per pound on each discharge is not so great. The makers of the Exide battery have developed commercially several thicknesses of which three will be described as being representative. The standard Exide battery has a positive plate 7-32-inch thick and gives a capacity initially of about  $8\frac{1}{2}$  watt hours per pound of complete cell at its five-hour discharge rate, and this capacity will increase to about  $10\frac{1}{2}$  watt-hours in service.

"The Hycap Exide has a positive plate of 3-16-inch thickness will give initially about  $9\frac{1}{4}$  watt-hours per pound and will work up in service to about 12 watt-hours per pound of complete cell at the five-hour rate of discharge. The thin plate battery has a positive 9-64-inch thick, will give initially about 10 watt-hours per pound, and will work up in service to about  $13\frac{1}{4}$  watt-hours per pound of complete cell at the five-hour rate of discharge. There are, of course, more plates per pound of thin plate battery than of thick plate battery. Experience has demonstrated that with a given weight of battery where about the same percentage of the full capacity of the battery can be utilized on each discharge, the life in miles of the thin plate batteries is about the same as that of batteries equipped with the thicker plates. In other words, the extra mileage obtainable on each discharge practically compensates for the reduced number of discharges obtainable during the life of the batteries having the thinner plates.

"Experiments have shown that the lead

battery is capable of considerable further development to produce higher capacity per unit of weight, and also to produce plates of considerably longer life. In both the lead and the nickel types of batteries the action which governs the life is largely mechanical. In the respective processes of charging and discharging the battery, the active material of the positive pole plates becomes alternately oxidized and deoxidized. This alternate action causes a molecular disturbance which would eventually cause the active material to lose its coherence unless artificially maintained. In the lead battery it has generally been the practice to permit the active material to become gradually disintegrated and washed out from the surface, and to allow a reserve in the quantity of active material sufficient to produce a commercially satisfactory life. To the carrying around of this reserve active material in the lead battery is largely due its greater weight per unit of capacity than that of the alkali battery whose active material is maintained mechanically to restrict its molecular disintegration.

"For many years experiments have been carried on in this country and abroad to determine what could be done toward preventing the disintegration and washing away of the lead active material. To a Frenchman belongs the credit of having invented the only practical method so far found to actually accomplish this result. The fact was thereby established that by holding the active material in its place the life of the plate can be prolonged with excellent capacity to an almost indefinite period. The mechanical details of construction employed for this purpose were complicated and expensive, and this battery up to the present time has never been exploited to any considerable commercial extent. Recognizing, however, the value of the principle involved, the Electric Storage Battery Company, makers of the Exide battery, several years ago secured the American patent rights to this type of cell, and since then have been carrying on a course of experiments with most encouraging results, so that when they put this battery on the market, which will be within a very short time, it will be with every confidence in its future. In its present form, this battery will give initially in the neighborhood of  $9\frac{1}{2}$  watt-hours per pound, increasing in use to somewhat over 13, with a life of from two to three times that of the standard lead battery, and during its life the necessity for cleaning the battery of sediment will be eliminated. In the course of the years of experimenting with this battery various means of still further increasing the capacity per unit of weight of the lead cell have been opened up, so that a wonderful future may be predicted not only for the new battery, but for the lead battery as a whole, of which this new battery is only one form."

## TESTING NEW MODELS ON THE ROAD

**How One Company Gets the Best Work Out of Its Testers—Makes Payments on Mileage Basis.**

Paying road testers on a mileage basis, instead of giving them the usual day's wage for their work is a method adopted by one well-known American automobile manufacturer much to his own advantage as well as to that of the employees affected. The idea reveals appreciation of the psychological as well as the business aspects of the work. For while, to the average motorist, the mere occupation of driving a brand new car mile after mile with nothing in the world to do but keep the machine going and pile up as much mileage as conditions will permit might be considered an ideal occupation, it must be remembered that, to the road tester, it is "work." Also it must be borne in mind that road testing must be carried out regardless of highway and weather conditions and independent of the inclinations of the driver.

Thus it happens that occasionally, when it is desired to put a car through an endurance or "breakdown" test, the personal equation of the tester is found to have a considerable bearing on the result; the time required to complete a trial of this nature frequently has been known to drag out to such an extent as to interfere with production at the factory, for example, or to delay the turning over of cars at the prescribed rate. To obviate this difficulty the concern in question, the Locomobile Co. of America, of Bridgeport, Conn., has resorted to the expedient of paying the testers on a basis of distance actually covered on the road, instead of allowing them the regular rate of payment on the day and hourly scale.

"Testing out a model car is a long, slow, tedious operation where there is no incentive to drive for mileage other than that presented by a nice day with fine roads and the desire for a long trip," says Superintendent E. F. Russell, in explaining the merits of the system. "Something always happens; there are always reasons why the mileage is short and why, in some cases, no mileage is made for the entire day. Reasons usually are ones that it is hard to argue against—all of which is aggravated by bad weather. Models are usually born during the bad weather of early spring, when the most comfortable thing for the driver to do is to tinker with them around the garage and then spend a few hours on the road.

"All of these troubles disappear, including the car troubles, when the driver has a chance to run his rate from \$3 to \$5, \$6 or even \$7 a day. It is magical the way

the thing works out. The one idea of the driver under per mile basis is to get moving as soon as possible after daylight and to run to the limit of his time.

"When this method of driver and payment is adopted, however, it must be for a breakdown test of the model. It is neither advisable nor wise to adopt this method for

### The Limousine Lamp from Amesbury.

In addition to their standard headlights and side lamps, Gray & Davis, of Amesbury, Mass., have heard the call for those



special and distinctive designs that have come to be considered a necessary part of the limousine's equipment. The response to the call is shown by the accompanying illustration. That the new lamp is both richly ornamented and highly useful and that it will add "class" to any limousine to which it may be applied its appearance makes evident.

the ordinary testing of cars, as in the latter the driver's chief concern should be the adjustments, which have as much to do with proper running at slow speeds as they have with proper action at high speeds.

"Another prime requisite in testing out a model car is continuous hard service, with no let up. A test that is continuous for a given number of miles, say, 25,000, running the car a greater distance by the usual method of fairly easy day runs. Again in a prescribed course or courses which include all kinds of roads from fine stretches for speed to heavy hill and bad sand stretches for strains is best for such a test. Prescribed courses are necessary; otherwise the driver adopts the smoothest stretch he can find, with the idea of accomplishing mileage only.

"A good way to run a test is to have a relay of three drivers, working eight hours per day, payment to be made by the premium plan; which is based on a given number of miles for a day's work."

## MEN WHO WILL MOULD STANDARDS

**Make-up of the S. A. E. Committees on Standardization—New Work that Has Been Apportioned.**

In putting into effect its important undertaking of rearranging and organizing the standards of automobile design, the standards committee of the Society of Automobile Engineers has divided the work into 15 sections, each of which constitutes practically an independent problem in itself and is under consideration by a sub-division of the committee. Henry Souther, of Hartford, Conn., is chairman of the divisions generally, while A. L. Riker, of the Locomobile Co. of America, is acting in an advisory capacity to the extent that his time permits. Howard E. Coffin, president of the society, is member ex-officio of all the divisions, and exercises general oversight of the work. The headquarters of the committee is the New York office of the society, 1451 Broadway, Coker F. Clarkson being secretary of all the divisions.

The sub-committee on frame sections, which met in Cleveland this week, is composed of the following members: W. H. Van Dervoort, Moline Automobile Co.; James H. Foster, Hydraulic Pressed Steel Co.; L. R. Smith, A. O. Smith Co.; W. P. Kennedy, Studebaker Automobile Co.; J. G. Perrin, Lozier Motor Co. The other sub-committees are composed of the following members:

Aluminum and copper alloys—E. E. Allyn, Allyn Brass and Foundry Co.; J. J. Aull, Lunkenheimer Co.; G. W. Dunham, Chalmers Motor Co.; T. J. Fay, The Automobile; R. S. Fretz, Light Manufacturing and Foundry Co.; G. M. Holley, Holley Bros. Co.; S. P. Wetherill, Jr., Wetherill Finished Castings Co.

Bearings—H. W. Alden, Timken-Detroit Axle Co.; W. A. Frederick, Continental Motor Mfg. Co.; David Ferguson, Pierce-Arrow Motor Car Co.; Henry Hess, Hess-Bright Mfg. Co.; D. F. Graham, New Departure Mfg. Co.; Elwood Haynes, Haynes Automobile Co.; W. P. Kennedy, Studebaker Automobile Co.; Howard Marmon, Nordyke & Marmon Co.; A. P. Sloan, Jr., Hyatt Roller Bearing Co.; S. P. Wetherill, Jr., Wetherill Finished Castings Co.

Broaches and broached holes, both square and splined—Alex. T. Brown, Brown-Lipe-Chapin Co.; C. E. Davis, Warner Gear Co.; F. L. Eberhardt, Gould & Eberhardt; G. E. Merryweather, Motch & Merryweather Machinery Co.; C. W. Spicer, Spicer Mfg. Co.

Carburetors—G. G. Behn, Hudson Motor Car Co.; George M. Holley, Holley Brothers Co.; H. P. Maxim; Howard Marmon, Nordyke & Marmon Co.; J. G. Sterling, F. B. Stearns Co.

Constants for certain metals for gears—

G. W. Sargent, Crucible Steel Company of America; J. M. Mack, Mack Brothers Motor Car Co.; W. H. Van Dervoort, Moline Automobile Co.; C. H. Taylor, Hudson Motor Car Co.

Iron and steel—W. P. Barba, Midvale Steel Co.; E. L. French, Crucible Steel Company of America; Elwood Haynes, Haynes Automobile Co.; Arthur Holmes, H. H. Franklin Mfg. Co.; S. V. Hunnings, American Locomotive Co.; Russell Huff, Packard Motor Car Co.; M. T. Lothrop, Halcomb Steel Co.; George L. Norris, American Vanadium Co.; Thomas Prosser, Thomas Prosser & Son.

Lock washers—Charles T. Jeffery, Thomas B. Jeffery & Co.; A. C. Bergmann, Simplex Automobile Co.

Nomenclature—P. M. Heldt, Horseless Age; A. L. McMurtry, Automobile Club of America; C. H. Taylor, Hudson Motor Car Co.; A. H. Whiting.

Records of gasoline motor characteristics—H. G. Chatain, General Electric Company; B. D. Gray, American Locomotive Co.; E. T. Birdsall; Alex. Churchward.

Seamless steel tubes—H. W. Alden, Timken-Detroit Axle Co.; J. J. Dunn, Shelby Steel Tube Co.; W. S. Gorton, Standard Welding Co.; C. B. Reddig, Columbia Motor Car Co.; W. H. Staring, Peerless Motor Car Co.; W. H. Tuthill, Tuthill Spring Co.; H. S. White, Detroit Seamless Steel Tubes Co.

Springs, shackle bolts and spring fittings—A. C. Bergmann, Simplex Automobile Co.; George S. Case, Lamson & Sessions Co.; Christian Girl, Perfection Spring Co.; L. D. Hubbell, Pope Mfg. Co.; Charles T. Jeffery, Thomas B. Jeffery & Co.; W. H. Tuthill, Tuthill Spring Co.; G. A. Weidely, Premier Motor Mfg. Co.

Sheet metals—F. C. Burkhardt, The Crosby Co.; J. H. Foster, Hydraulic Pressed Steel Co.; C. E. Lozier, Columbia Steel Co.; Robert Skemp, American Sheet & Tin Plate Co.; L. R. Smith, A. O. Smith Co.; C. E. Whitney, Whitney Mfg. Co.

Tire efficiency—F. J. Newman, Woods Motor Vehicle Co.; H. F. Cuntz; David Ferguson, Pierce-Arrow Motor Car Co.; H. W. Alden, Timken-Detroit Axle Co.; Bruce Ford, Electric Storage Battery Co.

Wood wheel dimensions and fastenings for solid tires—J. M. Mack, Mack Brothers Motor Car Co.; W. P. Kennedy, Studebaker Automobile Co.

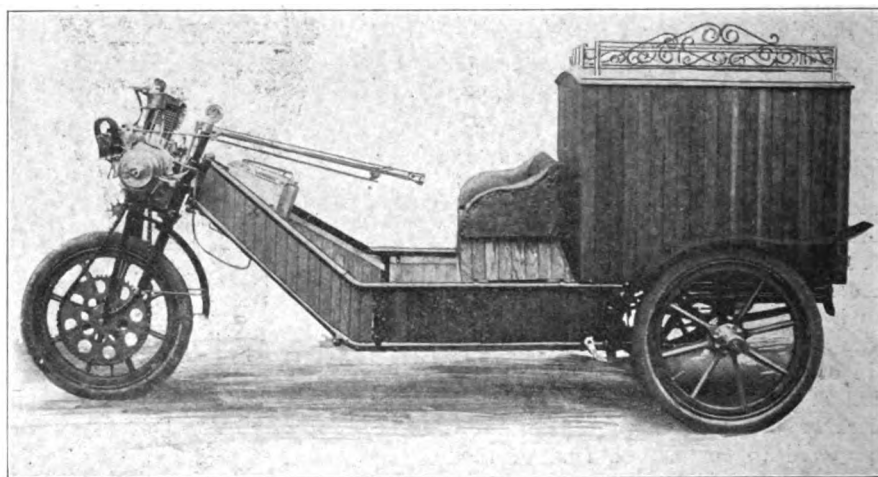
#### New York Owners in a Garage Project.

The Independent Owners' Garage Co., which recently was organized for the purpose of establishing a private club garage on the west side of New York City, has leased the property of Charles A. Miller, located at 326-328 West 70th street. The plans provide for altering the stables now on the plot into a five-story structure, of concrete, brick and limestone, at a cost of \$30,000. The company is said to have nearly one hundred members.

## TRI-CAR FROM THOMPSONVILLE

**It is Practically a Reproduction of a German Model—Incorporates Some Old Ideas and Some New Ones.**

When, several months since, the Bushnell Press Co., of Thompsonville, Conn., disposed of its cotton press interests and made known that it would engage in the manufacture of automobiles, no intimation was given of the manner of machine which it would produce until this week. As the accompanying illustration shows, it is a small three-wheel conveyance, blending both automobile and motorcycle ideas. It is



THE TRI-CAR FROM THOMPSONVILLE IN COMMERCIAL FORM

styled the Maxim tri-car, the name Maxim springing not from the well-known and inventive family of that name but from one of the two men responsible for the Bushnell creation, Maxim Karminski; his collaborator was Charles Peters. Both are foreigners and the machine itself is described as virtually a reproduction of one made in Germany.

In respect to the mounting of the motor and the carburetter employed the tri-car is productive of almost forgotten recollections. The very earliest motor bicycles, those of 12 years ago, carried the motors on the front forks and were driven by belts running on a pulley rim secured to the front wheel; and surface carburetters, such as are employed on the Maxim tri-car, were characteristics of the motor tricycles that preceded the bicycles. Their recrudescence at this time is rather startling.

The motor is of the two cylinder four cycle, air-cooled type, having automatic inlets. The aluminum crank case in two vertical sections also forms the base, which is fastened to a platform over the spring forks. A two-speed planetary type of transmission supplants the fly wheel. A Bosch magneto supplies the ignition. The planetary transmission control is through a horizontal lever carried within a steel

tube  $1\frac{1}{2}$  inches in diameter, which serves as a steering member. It is quite ingenious. By moving the lever to the right the gear is thrown into high speed and locked in position by a lever. Neutral is obtained by moving the lever back to center, and the speed of the engine is kept down by means of a little lever on the left side of the gear which controls the magneto. To turn this lever to the left throws in the low gear. Power is transmitted from a small sprocket on the transmission shaft to a larger one, secured on the front wheel hub, through a roller chain. The motor, transmission and all driving mechanism are contained in a single unit, and placed over the front wheel. Chain slack is taken up by a sprocket idler fitted with a spring device also pro-

viding for road shocks. Lubrication is accomplished by the splash system. The surface carburetter is carried within the gasoline tank and the feed is by pressure through flexible tubing to the motor.

This tri-car has a tubular frame of bridge construction, the side members being arched over the rear axle. The latter will be changed in construction soon from a solid piece of chrome nickel steel, which it is at present, to tubular steel. On each rear wheel hub is a brake actuated by a foot pedal.

The springs are two in number, semi-elliptic, 32 by  $1\frac{1}{4}$  inches. The wheels are 28 by  $2\frac{1}{2}$  inches, fitted with clincher tires. Chassis are equipped with either a box type of delivery body or with passenger equipment, the price of the former being \$325 and of the latter \$375.

#### How Rusted Nuts May be Removed.

To remove a nut which has become rusted in place, first saturate the bolt-end and the surface around the base with kerosene. After several hours of "soaking" in this way, hold a hammer or wrench firmly against one of the flats and strike the opposite one several smart blows. This will tend to break the scale in the inner threads which the oil has not reached.



**STREET CARS FOR SMALL TOWNS**

**Enterprising Georgians Show How a Touring Car Can Fill the Bill—Clarksville's Successful Experiment.**

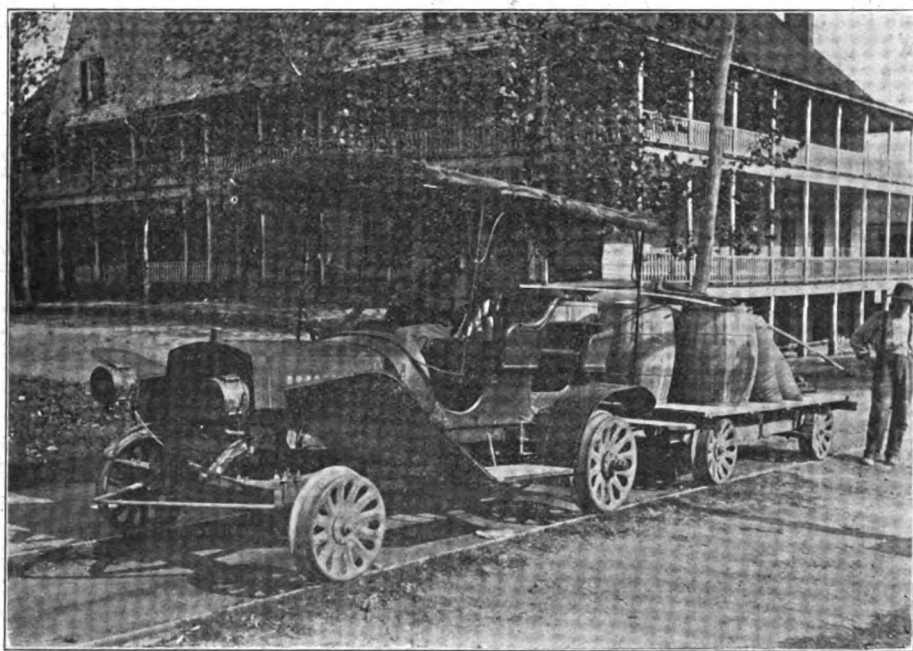
Clarksville is not much more than a dot on the map of the state of Georgia, but it possesses several enterprising citizens who realized the adaptability of the automobile and who did not hesitate to make use of it in a manner that "points a moral" to other small towns of Georgia and of all other states.

Although Clarksville is a little place, the railway station is more than a mile re-

baggage and express matter conveyed by the flat car. The charge is five cents per passenger and 25 cents per trunk. The "street car" makes ten trips daily between town and depot and has been in operation several months.

**Burn Garbage to Charge Electric.**

After considerable experimenting in Hamburg, Germany, with an electric motor cart for collecting garbage, writes Consul-General Robert P. Skinner, the authorities have proposed to purchase a number of others, so that within a few years horses will be eliminated entirely in the handling of garbage. The power for charging the storage batteries of the cars is indirectly supplied by the city's incinerating furnaces.



CLARKSVILLE'S "STREET CAR LINE" READY FOR DUTY

moved from "Main street," and the walking is none too good. Accordingly an automobile was pressed into service to make the trip from town to station several times each day, but the number of passengers who presented themselves for transportation was far greater than the capacity of the gasoline car, and yet not large enough to justify any very considerable expenditure. The idea of a street car line was suggested, but the cost of trolley cars and equipment and power plant was out of the question. But the Clarksville Street Car Co. was organized, nevertheless. It was constructed around a pair of steel rails and the 25 horsepower Mitchell touring car, shown by the accompanying illustration. The "additional rolling stock" consists of two trailers, one a light truck for freight and the other a kind of omnibus for passengers. All of the cars, like the Mitchell, are, of course, fitted with flanged railway wheels of the standard type.

As many as 40 passengers have been carried on one trip, to say nothing of the mail,

Mr. Skinner thinks these municipal incinerating furnaces in Hamburg can be studied profitably by American municipalities.

There are 36 of these furnaces, which all burn continuously, except when they require cleaning. No commercial fuel is required after the fires are once started, and therefore the coal consumption is insignificant. The slag is removed in small iron carts and cooled by water, then broken up into three sizes by a slag breaker. An electro-magnet is in operation in connection with the slag breakers, which removes all pieces of iron, if such are contained, after the refuse has passed through the furnaces. The scrap iron is sold at auction, and the slag itself is in great demand for road dressing, drainage foundation of roads, concrete mixing, paving block bed for slag brick. The garbage incinerating furnaces also furnish power to operate the cranes, slag breakers, lighting plant, and the dynamos which generate the electricity for charging the accumulators of an electric motor launch.

**DISTRICT OF COLUMBIA A STATE**

**In the Legal Sense, at Least—Virginia Justice so Decides and Motorists Gain a Point.**

What is perfectly obvious to most people, but seems to require considerable thought when referred to the judiciary—namely, that the word "state" when applied to the various commonwealths forming the United States includes ipso facto the "territories" and the District of Columbia—has been judicially affirmed by Justice E. F. Thompson, of Virginia, at least so far as the Virginia automobile law is concerned. This law permits motorists from other states to use the Virginia roads for two periods of seven days each in the year without taking out a Virginia license.

The decision was made in a test case brought by LeRoy Mark, a Washington (D. C.) automobile insurance man, who motored to the Alexandria county courthouse on Tuesday, October 18th. Immediately upon his arrival he was arrested for entering Virginia without having complied with the laws, he having no machine license.

At the time the law went into effect, June 15, 1910, it was decided the clause exempting a resident of a state for a period of seven days did not apply to the District of Columbia, as it was not a state.

Mark was taken before Justice Thompson, and his two lawyers brought to the attention of the court Article 1 of Section 5 of Pollard's Code of the State of Virginia which reads: "The word 'State,' when applied to a part of the United States, shall be construed to extend and include the District of Columbia and the several territories so called, and the words 'United States' shall be construed to include the said District and territories." They further pointed out the Virginia law regulating automobiles expressly stated any one who had complied with the laws of his own state and displayed his identification number, together with the initial letter or letters of that state, was entitled to the use of the highways for two periods of seven consecutive days in each calendar year.

Justice Thompson's decision is not final, for an appeal has been noted by the Commonwealth Attorney of Virginia, in order that the matter may be brought to the attention of the attorney general.

**Rain Postpones Mount Vernon's Meet.**

Rain on Saturday last caused the postponement of the Mount Vernon Automobile Club's racemeet on the Empire City track, Yonkers, N. Y. It will be run on Election day, November 8th, a meet on the nearby White Plains track being scheduled for next Saturday, thereby preventing an earlier date.

### TALL TASK FOR A TOURING CAR

**Abbott-Detroit Undertakes to Complete  
100,000 Miles—Fine Start Already Made  
—Will Visit Whole Country.**

Tall travel to the extent of a round 100,000 miles is the demonstration to which the Abbott Motor Co. has committed one of its cars, dubbed the "Bull Dog." The car, driven by Roy McClary, is shown in the ac-

Detroit will be sent away on a long trip, including Chicago, Buffalo, Portland, Me., New York, Philadelphia, Washington and through the Southern states. On this part of the long journey Montague Roberts will be at the steering wheel. It is the intention of the makers to keep the car running until the 100,000 miles have been covered, when it will be taken apart in the presence of a committee of expert mechanics and every part examined as to wear and a thorough report made.

to earning a goodly sum towards the upkeep of the car, made trips from Paris to the provinces and seaports, returning usually with as full a load as he went. As is but natural, prices for simple transportation soared to a height never before reached in France. Owners of "rubber-neck" coaches capable of going a few hundred miles without serious trouble reaped a rich harvest. The fare for a single person from Paris to Boulogne was \$40; to Calais, \$50; to Brussels, \$70; Dieppe, \$40;



STRENUOUS GOING IN THE ROCKY MOUNTAINS ENCOUNTERED BY THE ABBOTT-DETROIT 100,000 MILES CAR

companying illustration in a Western setting, and is expected to go east, west, north and south in the hunt for mileage. Up to the present it has covered 13,900 miles, most of them in the mountain districts of Colorado and in the prairie states of the Middle West. Although handicapped by particularly bad weather, the car has succeeded in rolling up an average of 150 miles per day, up hill and down dale, through sand and gumbo, rain and storm, and, it is asserted, without repairs, adjustments or replacements of any kind.

As soon as it has reached Detroit, to which city it now is headed, the Abbott-

Detroit, during the first 10,000 miles, part of which it reeled off during the endurance run of the Kansas City Star, the car ran into a bed of quicksand in a creek which it was fording. The motor was entirely submerged, and it required the assistance of several horses and six men to pull it out of the quicksand, after twelve hours of work.

#### Strike that Proved Automobile's Harvest.

Mail advices just received from France give some idea of the enormous demand put upon automobiles during the recent short-lived railway strike. Practically every owner of a motor car who was not averse

Lille, \$60. Although these prices were the averages, occasionally much higher rates were obtained. One party of three, desiring to travel to Boulogne-sur-Mer, a distance of about 130 miles, had to pay \$240. The taxicabs made small fortunes, prices varying from \$15 for a trip to Versailles to \$30 for a round trip to Enghien or to St. Germain. Luxurious limousines, touring cars, phaetons, etc., were drawn up along the boulevards with big signs on them "Paris-Boulogne," "Paris-Dieppe," etc., and seldom had to wait long to be filled to their carrying capacity. A single trip to Brussels netted the owner \$400.

# The Massachusetts Idea of Road Improvement

Modern highway builders have come to regard the automobile not as an enemy to good roads, but as a cause from which have arisen new and serious conditions that constantly require to be met. The importance of the system of state construction and supervision of certain highways here requires emphasis, because, as Harold Parker, chairman of the Massachusetts highway commission, explained in the course of a paper read before the recent National Good Roads Convention at St. Louis, a tendency is observed for the cities and towns to follow the example set by state authorities in road building, and also, to some extent, to borrow their methods. The same authority also draws a parallel between the state highway systems of the United States and the government maintenance systems of Europe.

"The analogy between state roads and the government roads of Europe is close," said Mr. Parker. "The department of roads and bridges in France, which has had control of all the government roads for a great number of years, has demonstrated the wisdom of the organization of departments or boards to determine not only what roads are essential to the well-being of the state, but how to build these roads most economically and to maintain them effectively.

"The system which has been applied to the roads of France, and in a lesser degree in the other European countries, has had very much to do with the gradual development in this country of roads built under the control of the state government. . . . Any doubt as to the wisdom of states using their credit for the development of their road systems has long departed in Massachusetts. We consider that the building of good roads, and their care after they are built, is the best investment that the state of Massachusetts has ever made.

With a view to indicating the extent to which the influence of the automobile has been manifest not only in bringing about the improvement of the roads but in altering the methods of building and maintaining them, he goes on to present these fundamental facts:

"First: That the automobile has more gravely affected the question of good roads than any other one influence within my knowledge. The bicycle first gave an impetus to a slumbering desire, but the automobile put into practical effect the longings only partially aroused. It is true this came at a time when the people were very ready to receive the suggestion, because it was generally felt by all classes of people living in the country that their road sys-

tems must be improved; and that the automobile more seriously affected the well-being of an improved road more than anything else.

"Second: Wherever the automobile was a common factor the old water-bound macadam road showed the effects thereof at an early stage, and if the road was not immediately cared for its destruction was assured; and the cost of maintaining roads built under what was considered a few years ago as the only means of building them through the country became so great that it was practically prohibitive.

"This has caused the road-builders all over the world to devise ways and means of saving what they had spent so much money to obtain. They were almost in despair, because unless the roads were paved with wood, stone or brick, they were torn to pieces by the automobiles almost as soon as they were completed. It was felt that the macadam road was doomed, and nobody knew how to save it. The best road engineers in the world put their minds to a solution of this question.

"In Europe, tar and asphalt have been tried in different ways for several years, but only with indifferent results. In this country, in addition to tar and asphalt, asphaltic oil has been put to the test. The oil-producing companies have worked in conjunction with the roadbuilders in producing oils which, after exhaustive trials, have been demonstrated as most useful, so that many millions of gallons of different grades of asphaltic oil are used on the roads of the United States every year, with the prospect of vastly increasing amounts being required, as their effectiveness becomes more apparent.

"In Massachusetts our first experiment with residuum oil was tried on the sands of Cape Cod six years ago, where nothing was used except the natural sands and heated oil; and it may interest you to know that the road is as good today as the day it was built, and it requires little, if any, expenditure for maintenance.

"A vast number of experiments have been tried by us in the use of tar, asphalt and asphaltic oil. In fact, no known product has been overlooked in our endeavor to discover something which would prevent the materials of the road from being disintegrated by the wheels of automobiles.

"In England, the cost of maintaining roads since the advent of the automobile has increased from 48 to 70 per cent. In France, and in Europe generally, the ratio is about the same.

"In this country, a fair comparison of the

cost cannot be made, because our methods of building and maintaining roads have never been so well classified as to enable us to reach a satisfactory comparison.

"We realize here that in many cases the best built macadam roads have lasted but a few months under constant automobile use, so that our experience accords in the main with that of foreign countries.

"Our experience also indicates that the theory of macadam road construction need not necessarily be reversed or reformed, but that it should be modified in such a way that the tractive force of automobile wheels shall not tear apart its ingredients.

"The old doctrine is that the macadam road as originally built by Macadam gave not only endurance to the road, but gave resiliency to it also. Therefore, the old method should be retained, if possible.

"It is with this view that our experiments have been carried on. We found that it was necessary for us to secure a material which would make a new surface on top of the macadam road, and thus prevent the destructive action of the wheels, or else find some binder which might be incorporated into the top course of the macadam road, so as to prevent its disintegration.

"On old macadam roads the application of a new thin wearing surface to preserve the road has now become general practice in many localities, our common form being a thin surface formed by a light application of oil and sand, fine gravel, or stone screenings.

"This method of road preservation is now very extensively used on the state roads of Massachusetts with excellent results. Experience shows that if a suitable residuum asphaltic oil, one that is rich in asphalt, is used, a single application of about one-half gallon to the square yard will last from one to three years, its durability varying with the amount and character of traffic. Better results are obtained by two applications of one-fourth gallon each than by one application of one-half gallon.

"This method of preservation being so economical, many miles of ordinary water-bound macadam road have been built in the last three years with the surface finished with a wearing coat of oil and screenings, the additional expense over ordinary macadam, being only about eight cents per square yard.

"Another and possibly a more permanent method of constructing road to stand modern traffic, is to incorporate in the top layer of stone a sufficient amount of asphaltic material to fill all the voids, and bind the upper course.

"In the construction of roads under this method, the first course of stone is laid, the voids filled with screenings or sand, and the whole thoroughly compacted, as in the case of the ordinary macadam road. On the top of this course is spread the second or wearing course.

"The voids may be filled by either the penetration or mixing method. Under the penetration method the second course is laid and rolled lightly, after which heavy asphaltic oil is applied, preferably by means of spraying machines, using sufficient quantity to fill all the voids but not to flush the surface.

"Stone screenings or coarse sand are then applied over the whole, and thoroughly compacted. The thickness of this course is ordinarily about two inches and requires about two gallons to the square yard of surface.

"Under the mixing method, the second course of stone is first coated with the bituminous material, and is then spread to such depth that it will be about two inches thick after rolling.

"The additional cost of a road constructed by the penetration method is about fourteen cents, and by the mixing method about twenty cents per square yard above the cost of the ordinary water-bound macadam road, both of these estimates being based on the use of a heavy residuum oil.

"In cases where the traffic is extremely varied and heavy loads are transported, it is preferable to use a nearly pure asphalt, in which case the additional cost is about twenty-five cents per square yard.

"The above methods are also used for resurfacing old macadam roads, the method of procedure being practically the same as in constructing new roads. If the old road is worn badly and contains irregular holes, the low places or holes are patched with stone alone, or with stone and oil combined, tamped or rolled into place after which the new top course is placed.

"Another method of resurfacing worn out macadam roads is to mix heavy asphaltic oil and gravel, then spreading the mixture on the road to such depth that it will be about two inches in thickness after rolling. This method has been used in Massachusetts with the greatest success, and some roads that were treated by this method two years ago show absolutely no change at the present time, and are in perfect condition.

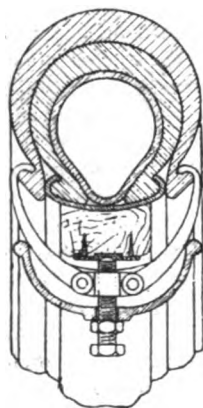
"In connection with this gravel and oil treatment it may be well to mention the fact that it has been found in Massachusetts that where traffic is not excessively heavy, a mixture of sand with heavy asphaltic oil makes as economical and efficient road surface in localities where sand or sandy gravel prevail, and stone is difficult to obtain.

"Another method adopted in Massachusetts for surface construction is to place about five inches of sandy gravel on the roads, and compact the same as much as

possible, and then apply heavy asphaltic oil, using about three-fourths of a gallon to the square yard, covering it with just sufficient sandy gravel to take up the surplus oil. The oil furnishes the binder that is lacking in the sandy gravel, and the completed road presents a smooth, hard surface that is hardly distinguishable from a surface composed of stone and oil."

#### Making Old Shoes Save New Ones.

Fore some time it has been the occasional practice of motorists who desire to effect striking economy with their tires to resort to the expedient of applying an old shoe outside the regular tire and casing. Considerable difficulty has been experienced



in working the plan, however, due to the tendency of the extra shoe—the overshoe, so to speak—to creep. To obviate this tendency and render the application of the double shoe plan reasonably easy, a foreign inventor has just produced a special clamping device which bridges the fellow and grasps the bead of the outer casing, which it thus binds firmly to the regular tire. So effective is the gripping power of the device, that it is claimed to prevent all creeping, thereby eliminating unnecessary wear between the outer and inner shoes.

As the accompanying illustration indicates, each of the several clamps which are used consists of two claw-like arms hinged to a connecting link. The link is tapped and provided with a tightening screw which bears a plate on the inside of the rim. When the claw arms are tightened they hold down the outer cover to the inner cover, and all lateral spread of the cover or arms is prevented by an additional bridge which bears against the arms.

The advantage claimed for the use of two shoes instead of one is that it provides a protecting buffer outside the main tread, so that any tears or cuts derived from running over snow and ice or over frozen roads are less likely to cause a fracture of the inner tube than ordinarily would be the case, while the life of the inner shoe also is materially prolonged. It also is believed that when touring over muddy roads the extra width of tread thus secured is advantageous in preventing the wheels from

sinking deeply into soft spots. The common way of affixing the extra shoe hitherto has been to strip off the bead and punch holes through the sides, afterward lacing the cover thus formed by means of wire passed around the main casing and the fellow.

#### Packard Produces Illuminating Cable.

Having made a big mark in the production of a cable that is highly successful for ignition purposes, the Packard Electric Co., of Warren, Ohio, naturally has taken up the manufacture of lighting cables to meet the growing demand made by the system of electric illumination of automobiles which is becoming so popular. The cable is made up in either single or duplex conductor styles. The makers claim for this cable that it will permanently withstand the action of dirt, moisture, vibration and more or less oil and heat, though not so much as the ignition cable. They are of large carrying capacity, but at the same time as small in outside dimensions as possible. The insulation consists of one layer of high grade rubber. The single conductors are protected by a single braid of fine glazed thread in colors, striped spiral each way and saturated with flexible enamel. The core is No. 30 tinned soft drawn copper wire.

#### To Assist American Cars in Brazil.

In a report advising that American manufacturers circulate their advertising matter in Rio de Janeiro, J. J. Schechta, the American vice-consul general, adds that "Rio de Janeiro has not proven a very successful field for American automobiles, owing to the lack of facilities for repairing them. European machines are said to get better attention than do American automobiles in the garages, but of late there seems to be a tendency toward better disposition in this particular. In any case, such manufacturers as may be planning later to establish themselves in Brazil could not take a more simple and effective means of initiating their campaign than with a thorough-going canvass of the present owners of motor cars in Rio de Janeiro."

#### Tire With a Phenomenal Record.

St. Louis has been responsible for some tall achievements, but if there ever was anything taller than the tire records reported by the White Garage Co., of that city, it has been lost to sight. The record—and it easily must be a world's record—is that of a Diamond tire used on a front wheel of the company's White steamer. Until recently retired from service, the tire not only had covered nearly 18,000 miles but never had been inflated or removed from the rim for any purpose, it still contained the air pumped into it when it left the White factory in Cleveland. The other three Diamond tires on the car had averaged 12,000 miles.



## Campaigning to Extend the Electric's Use

Although in the past the electric vehicle industry suffered considerably through the indifference of the central station men, upon whom the user is dependent for charging current, that condition no longer prevails. Quite to the contrary, some of the more wideawake members of the profession are taking special means, not simply to encourage electric vehicle owners to employ their vehicles under advantageous conditions, but to stimulate the market by offering various encouragements to present and prospective owners of electrics. In this respect, the central station men are gradually coming up to the standards that they have set in other lines of activity, where they have earned for themselves the name of extraordinarily persuasive merchants.

Considerable light was thrown on this method of promoting the use of the electric at the convention of the Electric Vehicle Association of America, held in New York last week, in the course of a paper read by Frank M. Tait, of Dayton, O., in which various methods which have been employed in the course of central station campaigns were discussed. Almost every town or city, with an electric current supply available, has had some experience with the electric pleasure automobile, and in many of these places vehicles reposing in the scrap heap, as Mr. Tait explained. In some of the towns where the central station is alive to its opportunities, many such relics have been overhauled, fitted with new bearings, motors and batteries, and at present are doing good work. The return of these vehicles to useful occupation constitutes a saving of capital which, though small in the case of one individual, is of considerable magnitude when taken in the aggregate. He continued:

"The early difficulty with the successful working out of the electric pleasure vehicle, as a dependable piece of apparatus, was the lack of proper care for the battery and the low mileage from excessive friction losses, etc. The battery, a few years ago, was the most shamefully handled piece of apparatus, and it was common practice to find the men directly responsible for the working out of these batteries with very meager knowledge or skill in handling same. Lead burning, in those days, was done chiefly by means of a soldering iron. Improper notions were entertained as to the mileage that a car might be expected to traverse under given conditions, often resulting in a completely discharged battery with the electric far from home and charging facilities. Repetition of these experi-

ences and the frequent necessity for paying for battery renewals, soon caused many users of the early electric pleasure car to abandon them, and these early experiences have made the later day introduction of electric vehicles difficult.

"A plan that is very successfully followed in bringing the electric vehicle to the favorable notice of the ladies, to whom it particularly appeals, is to have the manufacturers' demonstrators or the Central Station's vehicle man keep on the lookout for the various afternoon bridge whist and other small gatherings that are scheduled in the town or city, and knowing the families interested well enough, and having the correct sort of demonstrator, offer to call at their homes and deliver several of the ladies in the electric victoria or coupe to the house where the function is being held, and later call for them and return them to their homes. Only a few ladies can be handled in this way by one demonstrator, but where a number of vehicle salesmen are on the ground, it is often possible to take the majority of the ladies to the party. Of course, as little reference as possible is made to the ladies about the demonstration feature on the trial trip, and this is reserved for a few days later, when another is made to make more of a business demonstration, etc."

"One Central Station has a regular system of inspection in vogue, and while it does not maintain a garage for electric pleasure vehicles, it does have its vehicle man carefully overlook every electric vehicle in the city regularly, not less than once a month, although three electric garages are supposed to do the work properly and satisfactorily to the individual users and to the satisfaction of the Central Station Company.

"The treatment heretofore outlined, and with constant vigilance on the part of the Central Station vehicle man, has resulted in placing 85 electric pleasure vehicles on the streets of Dayton, Ohio, within the past two years, and the number is rapidly increasing. These cars are divided among all the well-known reputable types of electric automobiles, and the various electric vehicle and battery manufacturers have been most cordial in their feelings toward the Central Station and in their active co-operation towards the introduction of the various vehicles.

"The electric truck proposition must be handled in a somewhat different manner from the pleasure rig, and it seems to be necessary for the Central Station, at least in the beginning, in order to succeed to go

into the electric truck garage business.

"To properly attempt to sell electric trucks and assist in their adoption in any territory, the Central Station must first have an electric truck or two of its own. It is difficult to understand how any Central Station can expect to have many electric trucks on its streets, with their batteries fed from its circuits, until this has been done. Trying to sell electric trucks, without having at least one electric wagon of its own, corresponds to those Central Stations that sell electric current for lighting and would have their display rooms and business offices lighted with kerosene or candles.

"A plan to interest possible purchasers of electric trucks is to tabulate a list of the various stores, express companies, etc., that have to do with the delivery of goods, drayage, etc., by offering to loan a truck and a competent driver to go over their routes, now covered by the horse and wagon deliveries, and allow their delivery men to check in the business done against the electric truck's record of the cost of doing it. This showing will always be in favor of the electric truck, unless the work to be done is the sort that belongs to the gasoline trucks, like long and continuous hauls into the country, etc.

"These trial propositions can be worked successfully with department stores, grocery stores, express companies, drayage concerns, laundry companies, delivery companies, butchers, bakers, etc., etc. Careful records should always be kept of the weight carried, stops made, and all the vital data necessary to prove the superiority of the electric truck over the horse-drawn vehicle, as well as the gasoline truck, in many lines of delivery work. All electric vehicles should have careful records kept, daily, of their entire mechanical and electrical performance, and these record blanks are easily obtainable from vehicle and battery manufacturers, as well as Central Stations operating electric vehicle departments."

Referring to a 1,000 pound truck that has proved useful in the work of the central station itself, owing to its special equipment of linemen's paraphernalia and an electric searchlight, he continued:

"The projector contains a high candle-power tungsten lamp, and is arranged to focus in any direction. It was designed to facilitate locating and repairing trouble on the overhead lines at night, and the beam of light on the 50-foot pole shows how well and safely the lineman can attend to his repair work, even on a dark or stormy night.

"There are many uses to which this truck, with its searchlight, may be put. This wagon is on the streets almost continually, day and night. In the daytime it is used to install services and meters, and at night its battery is removed and a freshly charged one substituted, and the wagon goes on with the night trouble work, etc.

"In connection with the sale and introduction of electric trucks, it may be well to point out that mistakes have been made by various enthusiastic but misguided electric truck salesmen, who have endeavored to sell electric trucks for work and at speeds and under conditions that the trucks are not fitted for, and this is a matter that should be carefully followed by every central station company endeavoring to build up an electric business.

"Some time ago an electric vehicle man thought to help along the sale of a one-thousand-pound wagon by urging the proposed buyer to visit a neighboring city and see the truck demonstrated. Instead of having a truck of modern design and high efficiency available for the trail, an old model was used and a complete failure made of the demonstration, because the purchaser had been led to believe, by the vehicle man of the central station, that a modern truck would do the work properly and satisfactorily. If a modern truck had been used for the demonstration, the sale would surely have been consummated.

"While pushing the campaign for more electric vehicles, the builders will do well to consider the design and supply of a small electric wagon from five hundred to seven hundred and fifty pounds capacity, which would come between a pleasure vehicle and a one-thousand-pound truck, that could be made and furnished to the average central station for a much lower price than the present one-thousand-pound truck. There is an eager demand for a large number of these "small service" wagons that would fill the wants of the average central station for its trouble and repair departments.

"This type of wagon would be the proper thing for a small central station to start its electric vehicle campaign with, and enable it to practice the use of the electric vehicle and help to sell trucks in its territory.

"The gasoline vehicle builders have arisen to this need for a small delivery wagon, at a reasonable first cost and large numbers of these gasoline delivery wagons, suitable for the use of the butcher, baker, laundry, grocer, and similar people, are rapidly being introduced, at this time, into the territories supplied with electric current by the central stations in this country.

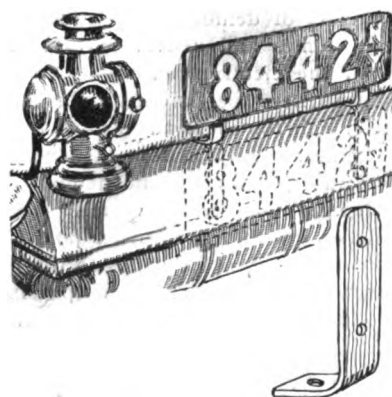
"At present, the central stations are entirely helpless to combat the introduction of these small gasoline delivery wagons, as the only electric vehicle now available for the purpose is the one-thousand-pound electric wagon which has a first cost of 65 per cent. more than the average gasoline delivery wagon above noted."

### Why Engine Power Sometimes Fluctuates.

Engines which exert almost full power at high speeds often show a tendency to lay down on low speed or when climbing a hill, and though this lack of power is usually found to be due to lack of compression, the reason for it is not so generally understood. The duration of compression at high speed is so slight that not a very large part of the charge is able to escape, while at a low speed the effects of poor compression are quickly noticed. Under the latter conditions a relatively large time elapses between the beginning of compression and the ignition of the charge, as well as between the ignition and the exhaust, with the result that the power fails when most needed.

### To Make a Home-Made Number Plate.

It is a curious fact that despite the universal application of number plates to mo-



tor cars no standard method of mounting them has been adopted universally. The result is that, particularly in the case of the rear number plates, a wide variety of positions are chosen, while each time a new car is purchased it becomes necessary again to solve the problem of mounting its number in such a way as to satisfy the legal requirements and also in as convenient a manner as possible. Few if any of the brackets designed for the purpose, and which are attached to the lamp bracket, serve the purpose. Frequently they do not permit the number plate to be set level and, as often, the first number is concealed or practically concealed by the lamp itself and the number plate is constantly a-shiver when the car is in motion.

The accompanying illustration shows an inexpensive and home-made solution of all these shortcomings. This device merely consists of two angle-irons, or other metal bent to shape, the number plate is secured to the longer or projecting arm by means of rivets or stove bolts, while the shorter arm is fastened to the underside of the body overhung by wood screws. The advantages of the arrangement are that it permits the plate to be mounted either above or below the body line—since the angles may be turned either up or down in

making the attachment—that it may be installed without drilling the frame, that it permits the number plate to be placed in either a high or a low position, that it is cheap to construct, and that it is not protected by patent. If desired, of course, the attachment may be applied to the overhang of the rear seat, instead of between the rear of the body and the frame, thus bringing the number nearly on a level with the rear mud guards.

### To Avoid Chain-Driven Magneto Trouble.

In cars in which the magneto or pump equipments are driven by sprocket and chain transmission that arrangement must be watched with extreme care to prevent it from giving trouble. In the case of the magneto in particular, any derangement is liable to give considerable trouble unless the proper setting of the parts has been studied in advance. Both sprockets should be marked with a prick punch when properly assembled, so that the "spot" on each sprocket will line up with a straight-edge placed from center to center of the two shafts. When this has been done a broken chain can be replaced without delay in adjusting the armature to secure the proper timing. A more common difficulty with this form of transmission arises from the stretching of the links, which tends to upset the timing of the magneto, while in the case of either magneto or pump, it is liable to interrupt the service by jumping the sprockets. This can be prevented only by constant watchfulness in maintaining proper tension.

### How Pierce Provides for Employees.

The trends of thoroughly modern factory construction and equipment are well illustrated by the conveniences provided for the workmen in the addition to the Pierce-Arrow plant at Buffalo. When it is completed there will be available 3,042 full-length lockers and 766 porcelain individual wash bowls, each provided with hot and cold water faucets, soap and separate towels. These are located in what is styled the administration building, and in order that the workmen may make use of them without inconvenience during inclement weather, the building is connected with the factory by several concrete tunnels. The big dining hall which was one of the features of the Pierce-Arrow plant and which seated 900 workmen, is being so enlarged that it will have a capacity for 1,700 men. During the winter evenings an organization of employees uses the hall for dances, concerts and similar affairs.

### How to Remove a Rusted Screw.

When rusty screws become refractory they usually can be removed by applying to their heads a red hot piece of iron or other metal. When the screw itself becomes hot it can be dislodged with a screw driver in the ordinary manner.



## ROTHS RESURRECT OLD PATENTS

Indiana Inventors Bring Three of Them to Bear in Suits Against Four Big Manufacturers—Points Involved.

With less than two years life left in the patents, Gilson W. Roth and Charles C. Roth, of Indianapolis, Ind., have convinced themselves, or someone has convinced them, that three patents which they own are possessed of sweetness which should not be wasted on the desert air. Accordingly, the Roths have selected four of the shining lights of the automobile industry and instituted suits for alleged infringement against them in the United States Circuit Court at Indianapolis.

The four concerns that are charged with infringement are the Willys-Overland Co., the United States Motor Newcastle Co., the Premier Motor Mfg. Co. and the Buick Motor Co. The patents involved, all of which were issued in 1895, are No. 539,923, May 28; No. 549,213, November 5 and No. 552,263, December 31.

Two of the patents—the first two—apply to four cylinder horizontal opposed engines, of which type few ever were used, but the specifications and claims are such that the Roths apparently believe that they cover mechanical details common to the present type of four cylinder vertical motors. As nearly as can be comprehended from the complaints, patent No. 539,923 is supposed to control four cylinder engines employing a single cam shaft, the Roth invention relating to a horizontal four cylinder engine, but one having a vertical and common cam shaft located between the cylinders. Patent No. 549,213 applies to a similar engine having two ignition circuits, one circuit for each pair of cylinders, and a single cam for closing the circuit and supplementing means for igniting the engine when at rest. The idea apparently prevails that this patent controls the ignition of four cylinder motors. The third patent, No. 552,263, relates to a generator for gas engines having a

specific arrangement for controlling the gas as it enters the mixing valve and also for controlling the admission of air and for cutting off the electrical circuit when the gas valve is closed.

### Reo Takes Owen and Rechristens Car.

The Owen Motor Car Co., of Detroit, formally has been absorbed by the Reo Motor Car Co., of Lansing, Mich., and henceforth the Owen car, which is to be rechristened the "R-O," will be built in Lansing, where it will occupy a part of the new Reo truck plant. While the amalgamation entailed an exchange of Owen shares for Reo shares, the basis of exchange has not been permitted to become public. Ralph R. Owen, the president of the Owen company and the designer of its car, who is a brother of Ray M. Owen, the Reo distributor, and F. R. Bump, sales manager of the Reo company, both have joined the Reo organization.

### Miller Gets Pacific Coast Berth.

Harry C. Miller, for many years a conspicuous member of the B. F. Goodrich Co.'s staff, first in Detroit and later in New York, has been appointed general Pacific Coast representative of that company and will leave for San Francisco in time to assume the duties on December 1st. For years the Goodrich company has been represented on the Coast by the Gorham Rubber Co., but on December 1st its contract expires and the Goodrich company itself thereafter will handle the Pacific Coast business. It is its intention to establish both wholesale and retail stores in San Francisco and Los Angeles and two other branches in the Pacific Northwest. Miller himself will make his headquarters at San Francisco, but will circulate between the various Pacific branches.

### Selden License for Morgan Trucks.

The R. L. Morgan Co., of Worcester, Mass., has been granted a license under the Selden patent. It applies only to motor trucks in the manufacture of which the company has been engaged for several years.

## FORD BRINGS DOWN ITS PRICES

Reductions Are Substantial and Apply With and Without Equipment—Reasons Given for the Move.

Quite unexpected, the Ford Motor Co., of Detroit, this week announced a reduction in the price of its productions for 1911—the Model T touring car from \$950 to \$780 and the Model T roadster from \$900 to \$680; and while the company will continue its policy of equipping the cars complete with top, wind shield, gas lamps, generator, etc., it has departed from the beaten path by naming prices on both models without such equipment, in which form the touring car lists at \$700 and the roadster at \$600.

"The reasons for these reductions," said Commercial Manager N. A. Hawkins, "are told in a few words. We are in a position to do business on a small profit. Our great new Highland Park plant is now completed and we have facilities for easily making 30,000 completed Model T cars in a year. This factory has already established a record of 285 finished cars in one day. Our equipment is so perfect that we will be able to build these cars with the aid of only 4000 men.

"Our factory is built to profit from quantity production. It occupies the greater part of 60 acres of ground and was built at a cost of two million and a half dollars. The main building of four stories in height possesses over one-half million square feet of floor space. We are going to make the Ford Model T indefinitely. All the necessary experiments have been made and paid for. Our big, new factory is fully paid for from the profits of previous years. We have no bond issues to pay off; there are no mortgages upon our property and we have contracted no loans. We have absolutely no indebtedness and our policy of purchasing in large quantities the entire output of steel mills, equipment, factories, etc., permits us to command the lowest prices in the market for materials. It

is all simply the result of specialization, organization and equipment, and a factory built with one purpose—that of building the Model T Ford.

"We have 49,600 Ford owners to-day. This is more than any other automobile company in existence. We have orders for next year's business which tend to make us very optimistic regarding the automobile industry in 1911. Our business for 1910 totalled \$19,000,000."

The Ford company, which was one of the first to organize an "Owner Service," will emphasize this department of its organization more than ever during the coming year. It has established two big assembling plants, one in Kansas City and another in Long Island City, for the purpose of extending service to eastern and far western owners of Ford cars. At the factory one entire floor in the main building is devoted to the parts department and here are complete stocks of parts of every car which the Ford company has manufactured since its organization in 1903. The company demands that each of its dealers also carry a complete stock of repair parts. At each of the branches—of which there are over a score—the parts' stocks are practically as complete as that at the Detroit factory.

The Ford Motor Co. at the present time holds a unique distinction in the automobile industry, in that it has maintained its personnel and management unchanged since the first day of its organization in June, 1903.

#### Dissatisfied Buyer Gets Jury's Verdict.

Following a trial by jury, judgment has been entered in the United States District Court at Salt Lake City, for \$1,876.23 against the Columbus Buggy Co., of Columbus, Ohio, and in favor of Mrs. M. E. Smith, of the Utah city. In some details the case was unusual. It grew out of a gift of a Columbus electric car made to Mrs. Smith by her son, who is a member of the State Senate. When it reached Salt Lake City, one tray of the battery was found to be old and useless and the car was shipped back to its makers and a return of the purchase price demanded. When the demand was refused, suit was instituted. The jury's verdict was for the cost of the car, \$1,650, plus interest, \$226.23, from February 1, 1909.

#### Californians Seek to Lessen Shocks.

The Bow Shock Absorber Spring Co., of Los Angeles, Cal., which has existed as a co-partnership, has incorporated with a view of enlarging its sphere. N. Luxemburger is its president and T. F. Rockwell, secretary and treasurer. The device which it manufactures is a spring of the archer's bow type. It is built up of leaves placed to reverse of the usual practice, the large leaf being on the out or under side, a centrally hinged truss rod serving to limit the range of action and to check the rebound.

## WALL STREET SELECTS ITS MAN

**James J. Storrow to be Controller of General Motors—Delay in Completing Details Defers Payment of Bills.**

Although it was expected that all the details connected with the General Motors Co.'s \$15,000,000 loan would be so well in hand that the company's obligations would be paid before the close of October, the ramifications were too diverse to permit it and Monday next now has been set as the next most probable date for the mailing of the welcome checks to the expectant creditors. Tardiness in receiving the report of the Buick Motor Co. is said to have been a contributing factor in the delay.

Meanwhile there have been meetings of the directors of the various sub-companies involved in the transactions and W. C. Durant, the wandwaver of the General Motors Co. and James J. Storrow, of Lee, Higginson & Co., who represents the Wall street interests that advanced the money, have been running to and fro between New York and Michigan. In addition to holding the stock and mortgages on all the big company's property, Wall street's control apparently is to be very real and very earnest. Storrow, who was elected one of the voting trustees, is said to have been selected as controller of the entire General Motors' establishment, and is to be represented by a controller in each of the sub-companies.

#### Million Dollar Merger on in Canada.

According to reports from Canada, the Baynes Carriage Co., Ltd., of Hamilton, and the American Road Machine Co., of Canada, Ltd., located at Goderich, Ontario, soon will be merged under the name of the Acme Motor Carriage Machinery Co., Ltd., with a capital of \$1,000,000 for the purpose of manufacturing motor cars of the touring, taxicab and commercial type. The main office of the new corporation will be at Hamilton, where the bodies will be made and other parts assembled. Several Detroit automobile manufacturers are said to be interested in the project, but inquiry has failed to disclose their identity.

The American company at Goderich is a branch of the American Road Machine Co., of Kennet Square, Pa., which absorbed the Good Roads Machinery Co., of Hamilton, about two years ago.

#### United States Takes Maintenance Company.

The Motor Car Maintenance Co., which has been conducting a general repair business in New York City, formally has become attached to the United States Motor Co., having been reorganized which officials of the latter company dominating its directorate and having located in its big

building at Broadway and Sixty-first street, where its equipment has been greatly enlarged. Its new officers are as follows: F. D. Dorman, secretary of the United States Motor Co., president; J. D. Clay, vice-president and general superintendent; J. W. Wellington, vice-president of the United States Motor Co., treasurer; W. R. DeVoe of the United States Motor Co., secretary and F. W. Darnstaedt, assistant superintendent. These men in conjunction with Vice-President Horace DeLisser of the United States Motor Co. constitute the board of directors. The Maintenance company will continue its general repair business on an enlarged scale and will also handle Grabowsky commercial vehicles in New York, New Jersey and Connecticut, to which F. J. Toner, manager, particularly will devote himself.

#### Evans Buys Factory for New Motor.

The Evans Motor Car and Parts Mfg. Co. has purchased a factory at 50-51 Harper avenue, Detroit, Mich., which is to be utilized for the manufacture of a 32 horsepower four cylinder engine designed by R. H. Evans, secretary and treasurer of the company, the simplicity and compactness of which is a striking feature. It has 103 fewer parts than the usual four cylinder motor, weighs only about half as much, is only about half the size and will be sold at a considerably lessened price. The Evans company purposes supplying the engine to the trade in addition to using it in cars of its own production. One of the motors has been in use for nearly two years and it was its behavior during that period that induced the company to begin the manufacture of the four-cylinder engines on a commercial scale.

#### Hydrocarbon for Tire Manufacture.

The Protecto Hydrocarbon Co. has been organized in Denver, Col., with capital stock of \$100,000, for the purpose of "converting hydrocarbons into waterproof materials and compounds necessary in the manufacture of automobile tires and other similar rubber goods." Among the men interested in the project are former Governor James H. Peabody, president; A. B. Frenzel, Thomas Keely, J. Grattan O'Bryan and A. L. Kintner. Offices have been opened in the First National Bank building, Denver, with Kintner as manager. A site is now being sought for a factory which probably will be located in the West.

#### Lozier Buys Land in Long Island City.

The Lozier Motor Co. has purchased a plot of six lots at Thompson avenue and Hulst street, Long Island City—which is a part of New York City—on which will be erected a fireproof building, 100 x 150 feet. The site is in the same vicinity as that in which the Ford and Packard companies recently erected immense "service buildings."



**MATHESON SEES CLEAR SAILING**

**Receivership Soon to be Ended—Selling Company to be Enlarged and to Take Over the Factory.**

The Matheson Motor Car Co., of Wilkes-Barre, Pa., is almost out of its troubles, which is to say the receivership which has existed since last July is about to be ended. As a result of a number of conferences, arrangements have been effected whereby the Matheson Automobile Co., the selling organization of which C. W. Matheson himself was the head, will take over the entire business and operate the factory as well as the sales department.

The Matheson Automobile Co. did not become involved in the embarrassment of its sister company and is increasing its capital stock to \$2,650,000 in order to provide for the new order of things. The receivers of the Motor Car Co., already have petitioned the Circuit Court of Luzerne County, Pa., for authority to make the transfer, and there is no doubt that it will be granted and that the Matheson business which always has been a high grade business, soon will be on smooth sailing once more.

During the receivership, operations of the factory at Wilkes-Barre necessarily have been curtailed, but once the pending arrangement is consummated, the plant will resume work with a full force on the production of the six cylinder car which was but just making its mark when the trouble came to a head. C. W. Matheson states that contracts are in hand amounting to several hundred thousands of dollars and that deliveries already are being made of the 1911 model.

**Maxwell Enlarges its Auburn Factory.**

The Maxwell-Briscoe Motor Co. has added two new buildings, one 370 x 85 feet, the other 100 by 50 feet, to its plant at Auburn, R. I. The enlargement will permit the Maxwell company to manufacture there every part that goes into such of its cars as are built in the Auburn factory.

**More Money Put into the Moon.**

The Moon Motor Car Co., of St. Louis, Mo., has increased its capital stock from \$175,000 to \$300,000 and has declared a 10 per cent. cash dividend and a 54 per cent. stock dividend. The latter was returned to the treasury to apply toward the increased capitalization.

**Jury Gives Big Verdict Against Garage.**

Damages amounting to \$16,500, and costs totaling \$107.68, were awarded to Mary Madden in a suit against the Bilbro Auto Co., which operates the Pyramid Garage at 36 West 62d street, New York City. In

the trial before Supreme Court Judge Platzeck and a jury, October 24-25, Mary Madden testified that her husband, Walter Madden, had driven his automobile into the garage and upon the elevator in the rear of the building; that this elevator started suddenly upward before the automobile had come to a complete stop; that the automobile slipped backward and that Walter Madden was caught between the car and the next floor, and was crushed to death. She therefore asked for damages of \$25,000. Examination during the trial proved that the employe running the elevator had been careless, that he was of immature age, and that therefore the Bilbro Auto Co. was responsible for the death of Walter Madden. The jury granted Mrs. Madden \$16,500 damages.

**Another Stanley Car Appears in Detroit.**

The Stanley Motor Car Co. is the title of the most recent addition to the Detroit trade. It has located temporarily at 318 Howard street, where it will begin the production of the Stanley "30" and "40," which will be listed at \$1,450 and \$2,000 respectively. The officers of the new company are G. S. Murdock, president; A. A. Savoie, secretary and treasurer, and F. E. Gibbard, general manager. Unlike the New England car of the same name, the Detroit Stanley will be a gasolene car.

**To Produce Spark Plugs in Detroit.**

With the mayor of Detroit, Philip Breitmayer, as its president, the Wolverine Motor Supplies Co. has been organized in Detroit, Mich., to manufacture the Detroit spark plug, the invention of Theodore L. Beguhn. The other officers of the company are Frank W. Kanter, vice-president, and Frederick A. Van Fleet, secretary and treasurer. George W. Simpson, who also is a stockholder, will manage the factory, which has been established at 1221 Woodward avenue.

**M. A. M. Fix Date for Annual Banquet.**

The Motor and Accessory Manufacturers, Inc., have set Friday, January 13th, as the date for their annual banquet. It will be held at the Waldorf-Astoria and as usual will be one of the big social functions of the New York show season.

**Baker Joins the Credit Association.**

F. A. Baker & Co., of New York, have been elected to membership in the Automobile Trade Credit Association. The firm, an old-established one in the cycle jobbing trade, recently added automobile accessories to its stock.

**Buick Brings Out a \$550 Model.**

The Buick Motor Co. has added a \$550 runabout to its line. It employs a two cylinder motor, 4½ x 4 inches, rated at 14 horsepower, and has 30-inch wheels and a wheel base of 79 inches.

**M. A. M. TOUCH HIGH WATER MARK**

**Large Accession of New Members Makes Roll of 220 Names—Twenty-four Applicants Elected.**

The membership of the Motor and Accessory Manufacturers, Inc., reached high-water mark on Thursday last, 27th inst., when the board of directors passed favorably on 24 applicants, thus bringing up the roll to 220 members. The new members elected were as follows: Apple Electric Co., Dayton, Ohio; Borne-Scrymser Co., New York City; Carpenter Steel Co., Reading, Pa.; Chicago Telephone Supply Co., Elkhart, Ind.; Covert Motor Vehicle Co., Lockport, N. Y.; Crucible Steel Co. of America, Pittsburg, Pa.; Dover Stamping & Mfg. Co., Cambridge, Mass.; Eisemann Magneto Co., New York City; Ferry Machine & Foundry Co., Cleveland, Ohio; Frost Gear & Machine Co., Jackson, Mich.; Johnson & Co., Isaac G., New York City; Kellogg Mfg. Co., Rochester, N. Y.; Miller Rubber Co., Akron, Ohio; Newark Rivet Works, Newark, N. J.; Reichenbach Laboratories Co., Chicago, Ill.; Russell Motor Axle Co., No. Detroit, Mich.; Schrader's Son, Inc. A., New York City; Spacke Machine Co., F. W., Indianapolis, Ind.; Standard Thermometer Co., Boston, Mass.; Stein Double Cushion Tire Co., Akron, Ohio; Stevens Mfg. Co., Rome, N. Y.; White & Bagley Co., Worcester, Mass.; Willard Storage Battery Co., Cleveland, Ohio; Young, O. W., Newark, N. J.

**Goodrich Gets Judgment Against Moto-Bloc.**

Judgment by default for \$1,911 was entered in the City Court of New York on Tuesday last, 1st inst., in favor of the B. F. Goodrich Co. against the Moto-Bloc Import Co., of New York, of which Leon D. Kaufman is president and general manager. The sum represents the value of goods furnished, \$1,892.04, plus interest and costs. Although Kaufman did not appear to defend the action, his affidavit acknowledged the debt, but disputed a credit item of \$14.80 which appeared in the account. Kaufman is the man who dealt in cut-price tires and who, claiming that his supply had been cut off, appealed to the courts to help him "smoke out" an alleged combination in restraint of trade.

**Oakland to Hold an Outdoor Show.**

Oakland, Cal., is to inaugurate the 1911 show season. This—Oakland's "first offense"—will be held out of doors in Idora Park, and will be opened in November. It is being promoted by the Oakland Automobile Association, and will be managed by George E. Middletown, although F. K. Mott, mayor of Oakland, figures as chairman of the show committee.

**THE WEEK'S INCORPORATIONS.**

Beatrice, Neb.—Glenwood-Jonz Auto Co., under Nebraska laws, with \$15,000 capital; to deal in automobiles.

Des Moines, Ia.—Ryan Motors Co., under Iowa laws, with \$5,000 capital. Corporators—William A. Ryan, L. A. Ryan.

Lima, Ohio.—Maus Auto Co., under Ohio laws, with \$5,000 capital; to deal in automobiles. Corporators—H. P. Maus and others.

Cleveland, Ohio.—The Owners Garage Co., under Ohio laws, with \$15,000 capital; to operate a garage. Corporators—Frank H. Ginn and others.

Kansas City, Mo.—Auto Car Sales Co., under Missouri laws, with \$5,000 capital; to deal in automobiles. Corporators—N. Rhodes, R. Ridgell, J. M. Reed.

Chicago, Ill.—Henry Motor Car Sales Co., under Illinois laws, with \$25,000 capital; to manufacture and deal in automobiles and other motor vehicles.

Louisville, Ky.—Electric Vehicle Co., under Kentucky laws, with \$10,000 capital; to deal in automobiles. Corporators—H. B. Hewitt, P. E. Allison, E. M. Drummond.

Brockton, Mass.—Pickard Bros. Motor Car Co., under Massachusetts laws, with \$150,000 capital. President—E. J. Pickard, B. I. Pickard, of Brockton; to deal in motor vehicles.

Sardis, Ohio.—Mt. Olivet, Sardis and Maysville Automobile Hack Line, under Ohio laws, with \$1,500; to operate a motor vehicle line. Corporators—W. S., J. M., J. A. Wheatley.

Newark, N. J.—Cook's Garage & Renting Co., under New Jersey laws, with \$25,000 capital; to conduct automobile garage. Corporators—J. T. Cook, G. L. T. Gibb, C. M. Cook, all of Newark.

Newark, N. J.—Cook's Garage & Renting Co., under New Jersey laws, with \$25,000 capital; to conduct an automobile garage. Corporators—J. Thomas Cook, George L. T. Gibb, Carrie M. Cook.

Boston, Mass.—Columbia Tire & Top Co., under Massachusetts laws, with \$35,000 capital; to deal in motor vehicles. Corporators—F. F. Wentworth, Dover, N. H.; R. A. Brine, Brookline, Mass.

Philadelphia, Pa.—Mack Motor Truck Co., under Delaware laws, with \$50,000 capital. Corporators—J. J. Smith, Baltimore, Md.; H. C. Yarrow, Jr., G. A. Yarrow, W. K. Yarrow, of Philadelphia.

Camden, N. J.—Mid-West Motor Supply Co., under New Jersey laws, with \$100,000 capital; to manufacture automobiles, motors, etc. Corporators—F. R. Hansell, William F. Eidell, John A. McPeak.

Chicago, Ill.—Townsend-Comstock Co., under Illinois laws, with \$25,000 capital; to manufacture automobiles and other motor

vehicles. Corporators—L. E. Townsley, S. E. Comstock, Edward F. Comstock.

Chicago, Ill.—Typhoon Signal Co., under Illinois laws, with \$5,000 capital; to manufacture automobile, marine, railway and other signals. Corporators—Theodore Weise, R. P. Hartenstein, C. F. Lower.

New England Engine & Supply Co., under Massachusetts laws, with \$50,000 capital; to manufacture and deal in gas engines and motors. Corporators—J. N. Shoemaker, M. W. Carsley, Winthrop, Mass.

Camden, N. J.—Mid-West Motor Supply Co., under New Jersey laws, with \$100,000 capital; to manufacture automobiles and motor vehicles. Corporators—F. R. Hansell, William F. Eidell, John A. McPeak.

Indianapolis, Ind.—Marion Sales Co., under Indiana laws, with \$10,000 capital; to deal in automobiles, motors and motor vehicles. Corporators—James E. Kepperly, E. A. Brown, J. O. Vanier, all of Indianapolis.

Kokomo, Ind.—Kokomo Junior Tire Co., under Indiana laws, with \$10,000 capital; to manufacture rubber tires for automobiles, bicycles and motorcycles. Corporators—A. L. Sprangle, J. C. Dewees, J. E. Palethorpe.

Cleveland, Ohio.—Sharp Spark Plug Co., under Ohio laws, with \$10,000 capital; to manufacture spark plugs for internal combustion engines. Corporators—J. F. Johnson, John Sharp, William Sharp, W. W. Turney.

Camden, N. J.—Low Speed Turbine Co., under New Jersey laws, with \$100,000 capital; to manufacture automobiles, airships, motorcycles, etc. Corporators—J. A. McPeak, H. L. Reese, J. H. Gaul, all of Camden, N. J.

Asbury Park, N. J.—Barnes Automobile Fender Co., under New Jersey laws, with \$250,000 capital; to manufacture automobile fenders. Corporators—W. D. B. Barnes, M. F. Thomas, W. H. Bechtel, all of Asbury Park, N. J.

Detroit, Mich.—Breeze-Detroit Carburetter Co., under Michigan laws, with \$50,000 capital; to manufacture and deal in carburetters. Corporators—George A. Breeze, of Detroit; William B. Lasher, of Bridgeport, and others.

New York City, N. Y.—Cross-Magill Motor Truck Co., under New York laws, with \$100,000 capital; to manufacture motors, motor vehicles, engines, etc. Corporators—C. J. Cross, W. F. Magill, P. S. Tilden, all of New York City.

Brooklyn, N. Y.—Institute Motor Supply Co., under New York laws, with \$10,000 capital; to supply automobiles, aeroplanes and motor boats with accessories. Corporators—James H. Whaley, Isaac A. Cary, both of Brooklyn.

San Antonio, Tex.—Thomas B. Jeffery Co., under Texas laws, with \$20,000 capital;

to deal in automobiles. Corporators—Charles T. Jeffery, G. M. Berry, of Kenosha, Wis.; Ira J. Kinnett, George B. Talieffer, of San Antonio.

New York City, N. Y.—Draper-Latham Magneto Co., under New York laws, with \$500,000 capital; to manufacture magnetos and other electric devices. Corporators—G. O. Draper, C. J. Dannenbaum, A. C. Day, all of New York City.

Syracuse, N. Y.—Onondaga Taxicab Co., under New York laws, with \$25,000 capital; to manufacture and sell automobiles, motor trucks and other power vehicles. Corporators—J. J. McCarthy, J. H. Coolican, R. P. Byrne, all of Syracuse.

Bangor, Me.—Penobscot Motor Co., under Maine laws, with \$100,000 capital, of which nothing has been paid in; to manufacture and sell automobiles, motors, engines, motor boats and aeroplanes. Corporators—Fred D. Oliver, J. S. Howe, both of Bangor, Me.

New York City, N. Y.—Gett Mfg. Co., under New York laws, with \$200,000 capital; to manufacture ball bearings, magnetos, machinery, motors, engines, motor vehicles, etc. Corporators—L. B. Gleason, F. B. Von Teuber, New York City; A. G. Schultz, Albany, N. Y.

Dover, Del.—International Automobile & Engine Co., under Delaware laws, with \$10,000,000 capital; to manufacture automobiles, airships, motorcycles and motor boats. Corporators—William D. Yarnall, of Yeadon, Pa.; Elwood H. James, of Sharon Hill, Pa., and S. C. Seymour, of Camden, N. J.

Wheeling, W. Va.—Hearne Motor Co., under West Virginia laws, with \$20,000 capital, \$2,000 of which has been paid in; to manufacture and deal in automobiles and fire engines. Corporators—Julian G. Hearne, Thomas McK. Hearne, S. A. Williams, all of Wheeling, and Leech K. Craft, of Elm Grove, W. Va.

**Increases of Capital.**

Cleveland, Ohio.—Toledo Carburetter Co. from \$1,000 to \$75,000.

Petoskey, Mich.—Northern Automobile Co. from \$2,500 to \$5,000.

Detroit, Mich.—Warren Motor Car Co. from \$100,000 to \$300,000.

St. Louis, Mo.—Moon Motor Car Co. from \$162,500 to \$300,000.

Lewistown, Mont.—Lewistown Automobile Co. from \$5,000 to \$10,000.

St. Louis, Mo.—Phoenix Auto Supply Co., from \$20,000 to \$50,000, full paid.

**Recent Losses by Fire.**

Chicago, Ill.—Colonial Garage, 826 East 39th street, damaged; loss, \$2,000.

Faulkton, S. D.—C. E. Warner's garage and twelve automobiles destroyed; loss, \$25,000.

## IN THE RETAIL WORLD.

Bruce C. Edenton has "opened up" in Jackson, Tenn. He is handling the Thomas Flyer.

Work has been started on a new garage in Mohawk street, Buffalo, N. Y. Allen E. Klopp is building it.

Ed Van Loo, of Waupun, Wis., has purchased the garage of Putnam Bros., and will conduct it in his own name.

The E. A. Perkins Co., which operated a garage and repair shop at 379 Main street, Winsted, Conn., has sold out to the Heady Garage Co.

The Auto Tire & Supply Co. is the style of a new concern which has been formed in Wichita, Kans. It will locate on South Lawrence avenue.

S. A. Lewis, of New Haven, is building a garage on Crescent place, in Bridgeport, Conn. The structure is 50 x 130 feet, of brick with concrete floors.

S. A. Phillipi, a constable of the Eighth ward, Reading, Pa., has gone into the automobile business. He will show Demot cars at 7 North Seventh street.

The American Motor Sales Co. has commenced business in Erie, Pa., with the Thomas Flyer agency. Northeastern Pennsylvania will form its field of sale.

New salesrooms have been opened by the Ross Motor Co., in Mobile, Ala., at 103 South Conception street. They are under the management of C. W. Short.

The Lackawanna Vulcanizing Co., of Scranton, Pa., has taken over the Central City Garage at 223 Wyoming avenue. It will occupy the whole building.

The Imperial Motor Car Co. has been formed in Nashville, Tenn., to handle Packard cars. J. S. Frazer is president of the concern, which will be located at 1518-1522 Broadway.

Work is progressing rapidly on a new garage which is being built on West Main street, Worcester, Mass., for the Ware Auto Co. It will be 50 x 80 feet, two stories high, of concrete blocks.

Ground has been broken for a new garage for the Fawkes Auto Co., Minneapolis, Minn. The building is 50 x 150 feet, with two stories and basement, and will house the Marmon line of cars.

William Richter, who, in partnership with Claude Simmons, owned the Motor Mart Garage on Douglas avenue, Freeport, Ill., has purchased the interest of his partner and will continue the business under his own name.

What is hailed as the most commodious garage in Southern California is now ready for business in San Diego. It is situated at the corner of Seventeenth and C streets, 100 x 100 feet, of brick and concrete, and will house Buick and Premier cars. F. B. Naylor is the manager.

Work is progressing rapidly on the new building for the Fawkes Auto Co., at Hennepin and Erie streets, Minneapolis, Minn. The structure is two stories high, of solid concrete, and will be ready on January 15, 1911.

Errett M. Lemon and Fred G. Serena, of Wheeling, W. Va., have purchased the American Auto Tire Repair Shop at 1609 Chapline street. Serena formerly was connected with the B. F. Perkins garage in the same city.

A four-story garage to cost \$150,000 is being built on Market street, near 20th street, Philadelphia, Pa., by the Douredoure estate. Several prominent automobile companies have signed leases for parts of the big building.

The stable of Timothy Sheahan at Land's End, Mass., is being converted into a garage. It will be of brick with concrete floor, and will accommodate at least fifteen cars. Sheahan will transfer his livery business to a rear building.

Under the style the Peerless Motor Car Co., a company has been formed in Brooklyn, N. Y., to handle the Peerless line of cars. E. T. Bloxman is manager of the company, which has its headquarters at 1384-1386 Bedford avenue.

Patterson & Thomas, Plattsmouth, Neb., have discontinued their business and sold their stock at auction. Thomas expects to open a salesroom and garage in Long Beach, Cal., while Patterson probably will go into some other kind of business.

Under the style the Clay Motor Car Co., a new concern has opened its doors in Philadelphia, Pa., with George S. Clay as president and general manager. Its headquarters are at 447 North Broad street, where Franklin cars are to be featured.

N. L. Biever, who has been with the Maxwell company for six years, has been given the agency for New Haven county, and has opened a salesroom at 1079 Chapel street, New Haven, Conn., under the style the Biever Motor Car Co. He will handle the Maxwell line exclusively.

Frank H. Stevens has been appointed receiver for the Massachusetts Automobile Co., Boston, Mass., which filed a petition in bankruptcy on October 29th with assets of \$3,128 and liabilities of \$19,445, nearly all of which liabilities are unsecured. His bond has been fixed at \$1,500.

Work was started last week on the new garage for Kemp Brothers, at 1518-1520 Hennepin avenue, Minneapolis, Minn. The new building will be two stories high, 44 x 125 feet, and will serve as headquarters for the Brush runabout and the Alden-Sampson trucks. The garage will be ready for business February 1st and is to cost \$18,000.

J. A. Cramer, the agent for Mitchell and Stoddard-Dayton cars in Buffalo, N. Y., has transferred the Mitchell agency to the

Mitchell Automobile Co., at North and Main streets, which recently was formed for the purpose and in which he is a stockholder. He will continue to show the Stoddard-Dayton line at his garage at 737-741 Main street.

With a capital of \$75,000, the Superior Motor Sales Co. has been formed in St. Louis, Mo., to take over the Stoddard-Dayton agency from M. M. Baker & Co. Its salesrooms are located at 2007 Locust street. Murray M. Baker, who has the state agency for Illinois, is the president of the new company, while O. L. Garrison, Jr., is the general manager.

F. W. Vogler and Norman DeVaux, formerly managers of the Northwest Buick Co., in Portland, Ore., have formed a partnership with Fred A. Bennett, of the F. A. Bennett Automobile Co., under the style the Northwest Automobile Co., with headquarters at the corner of Lounsedale and Alder streets. The company will handle Reo and Apperson cars exclusively.

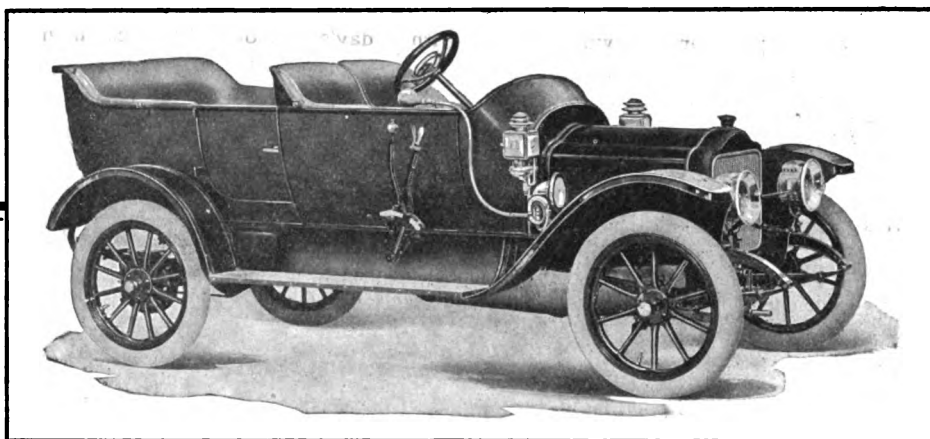
## Changes Among Prominent Tradersmen.

C. F. Rouze, who has had wide experience as general agent of the Acme Harvesting Machine Co. in Kansas City and who more recently managed a large motor truck business in that city, has been appointed general manager of the Western branch of the commercial vehicle department of the United States Motor Co. He will make his headquarters in Kansas City.

George E. Daniels, for the last two years manager of the Buick Motor Co.'s Philadelphia branch, has been appointed general manager of the Oakland Motor Car Co., of Pontiac, Mich., which, like the Buick company, is a part of the General Motors' organization. Phillip S. Russell, of Detroit, succeeds to the vacancy in Philadelphia caused by Daniel's transfer.

A. H. Doolittle has been appointed publicity manager and assistant advertising manager of the Knox Automobile Co., Springfield, Mass. In addition to acquaintance with publicity methods, he not only possesses the knowledge that comes of a Cornell course of mechanical engineering, but also that born of practical experience in driving a car and of actual work in the Pope, Electric Vehicle and Knox shops.

W. A. Merriam has been appointed Eastern manager of the Warner Auto-Meter Co., with headquarters at the company's New England branch, 925 Boylston street, Boston. After December 1st, the Warner advertising department also will be located at that address and will be in charge of Merriam, who resigned the management of the merchandizing and sales aid departments of Lord & Thomas, the big advertising agency in Chicago, to join the Warner establishment. As previously he had experience as both sales and advertising manager for two large concerns, he will be no stranger to his new duties.



## WHOSE JUDGMENT WILL YOU TAKE?

**W**HOSE judgment will you take when selecting a car for your personal use? Do you understand mechanics—does a gear cut from heat-treated chrome nickel steel look any different to you than one from malleable iron?—could you tell the difference? Does length of stroke or size of cylinders mean anything to you, unless backed by the performance of the cars in the hands of owners? In the long run doesn't it really mean that you must trust someone? And wouldn't you better trust to the trained minds of our organization—to our engineers who have been studying these problems for years? Isn't the stability of a manufacturer of importance to you—don't you need to know that he is going to be in business and make the guarantee of his car good—don't you need to know his Dun and Bradstreet ratings?

The White Company has been building machines for service for fifty years or more—they have been building automobiles that endure for over ten years, and some of the first models may still be seen doing yoeman's service on the streets.

When we tell you that our gasoline models are the best we know how to build—that they will run more economically for you—that they will do all the things you expect of them, or of any car, regardless of price—isn't it fair to presume that we have tested the proposition and know something of what we speak? We are building cars for continuous service, and whether they be gasoline or steam driven we are striving to produce the best. The performance of our cars in the hands of owners everywhere is your assurance that we have accomplished the result for which we have striven.

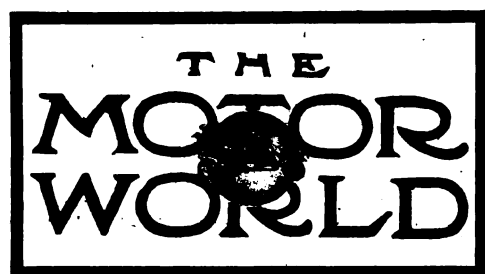
Let us send you literature which tells the intimate details;  
or better yet, let us demonstrate the cars themselves.

# THE WHITE COMPANY

830 EAST SEVENTY-NINTH STREET

CLEVELAND, OHIO





PUBLISHED EVERY THURSDAY BY  
**The Motor World Publishing Co.**

Joseph Goodman, President. R. G. Betts, Treasurer.  
F. W. Roche, Secretary

154 Nassau Street, NEW YORK, N. Y.

TELEPHONE 2652 BEEKMAN

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General Agents: The American News Co., New York City, and its branches.

**Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceeding the date of publication.**

Contributions concerning any subject of automobile interest are invited and, if acceptable, will be paid for; if unavailable, will be returned provided they are accompanied by return postage.

To Facilitate Matters All Communications  
Should Be Addressed to P. O. Box 649.

Cable Address, "MOTORWORLD," NEW YORK.

Entered as second-class matter at the New York Post Office, November, 1900.

NEW YORK, NOVEMBER 3, 1910.

### Motor Trucks as Display Advertisements.

It has frequently been pointed out that the use of motor vehicles by business houses in itself constitutes a useful advertisement. Indeed, in the past when the shortcomings of the motor truck and light delivery wagon were pronounced, the argument used to be offered as an offset to the high operating expenses that so frequently were experienced. At present that phase of commercial vehicle operation is far less valuable than formerly, though it still may be reckoned an asset by the persuasive automobile salesman. That the motor truck is superior as an advertising medium to the horse-drawn equipment, not intrinsically but because of its more rapid circulation, recently has been brought to notice by an authority who regards the matter in this light.

Considering the sides of the motor truck as an advertising medium in itself, he contrasts the advantage derivable from the wise employment of its 80 to 200 square feet

of surface as compared with that of the horse-drawn vehicle. With a day's run of 60 to 80 miles, he thinks the display should be in reading distance of at least 100,000 persons. "If we admit equal publicity to advertising in street cars and subways in reading distance of perhaps 5,000 persons at one dollar per square foot, we have an advertisement worth from \$80 to \$200 per day," he concludes. On the same basis, with its daily mileage of 20 to 30, the horse-drawn wagon passes with reading distance of from 30,000 to 40,000 persons, with a corresponding diminution in its advertising value.

It is by no means to be urged upon the commercial vehicle salesman that he seek to encourage the sale of motor trucks and delivery wagons on the strength of the increased "circulation" which they afford the owner's card painted on the sides. But it is important that this phase of motor vehicle employment, like all others, be gone into thoroughly and its full bearing on ultimate utility considered. There are certain classes of business in which the value of street display has an important influence on the volume of sales. Where such happens to be the case, of course, the motor vehicle man must be prepared to indicate the advantages to be derived from the wise use of wagon advertisements and to be prepared to advise the customer effectively.

### Expensiveness of "Inventive" Chauffeurs.

That ancient and honorable expression, which so often has been made to serve as a justification for high prices, "it is cheapest in the end," should be qualified before it is applied to the case of the professional chauffeur. It should be amended by adding—"provided he is not permitted to exercise his mechanical ingenuity in 'improving' the machine." Regardless of the wage question the chauffeur who is continually tinkering with the car is very expensive.

The question is never more pertinent than during those seasons when time hangs heavily on his hands or when much overhauling is being done and when, if he be inventively inclined, the alternative tendencies of the paid driver are apt to be in evidence. Supplementing the owner's personal pride in his mechanical sensibilities and his desire to acquire the satisfaction of individual initiative and achievement, the result is apt to be a loss of the true status of the automobile as a stock car. Which raises a question as to the real merit of the stock

car as a personal possession as contrasted with a car having few or many special qualifications.

As far as the average motorist is concerned, it must be remembered that in deciding whether the chauffeur's criticisms of the design are to be heeded to the extent of permitting him to modify the construction of the car in any material respect, the wisdom of the driver is pitted against that of the engineering department which the manufacturer maintains at tremendous annual expense for the express purpose of deciding just such questions. Occasionally the individual motorist may be so fortunate as to secure at chauffeur's wages an inventive genius who is capable of suggesting real improvements over an existing design. Such improvements sometimes may be of the sort which the manufacturer might not find it economical to install on a regular stock car. But in most cases they are apt not to be of the nature of genuine betterments, considered in the long run.

The whole point of the stock car principle is that it not only permits the producer to turn out a good product at a relatively low cost to the buyer, but that it permits him to go on taking care of the owner indefinitely. The whole theory of the service department rests upon the supposition that there will be a constant demand for replacements; with this in view the manufacturer lays his plans to produce quantities of surplus parts, which he is forced to carry in the form of a non-paying investment for an indefinite period. In departing in any material respect from standard specifications, the owner deprives himself of the benefits of such standardization, thereby placing himself in the same position he would occupy had the car been built to order.

The secret is out! It was plain to all that something ponderous must have dropped on the rubber market to flatten the price of the crude gum, but not until last week did it become known that the drop was that of our good old friend, The Automobile. It says so itself. It printed an article regarding the situation, the "rubber barons" of London, brave men that they are, read it and bingo! it was all over with them. It was so heavy that it squashed them flat and then the price of rubber came tumbling down. It is to be hoped that the trade and public realize the great debt of gratitude which, according to its own testimony, is due our valuable contemporary.

## SAVING MINNEAPOLIS MOTORISTS

**"Owners' Association" Rushes to Their Rescue—Bail, Lawyers and Tow Rope Always in Readiness.**

Minneapolis, which is in Minnesota, has become possessed of one of those Automobile Owners' Associations which paint beautiful pictures for the benefit of men who own motor cars and seek to rescue them from the clutches of dealers and repairmen who charge the market prices for supplies and labor. The officers of the Minneapolis association are: F. M. Cartwright, president; Chas. N. Acker, vice-president; Ernest Malmberg, secretary; Thos. D. Schall, treasurer; A. C. Raymond, general manager.

In addition to the usual sale of supplies and making repairs at "attractive prices," the Minneapolis organization proposes to carry on "rescue work" on the high road. It will have a "life line" always in readiness. This form of rescue is thus dealt with in the association's list of "members' privileges."

1. In case of accident or breakdown, from any cause whatsoever, all that will be necessary for a member to do in such emergency will be to seek the nearest telephone and notify, any hour, day or night, the offices of the association, stating the nature and location of accident, when a wrecking car will immediately be dispatched in charge of a competent chauffeur, mechanic or other help. The owner's car will be repaired at the place of accident, if it is within the bounds of possibility to do such work in reasonable time. Failing which the car will be towed to the association's garage, or, if desired, to that of the owner. The charge for such services will be free for the first hour; subsequently a nominal charge of \$3.00 per hour will be made. The radius within which such cars will be fetched and assistance rendered is anywhere within 10 miles of Minneapolis. Outside of such radius a small extra charge will be made, which will include the service of all engaged in repair work, and the actual repair work done, but not the cost of materials used.

2. Should an owner be arrested for exceeding the speed limit, or for the breach of any road rule, it will be only necessary for the member to report by telephone his predicament to the offices of the association when bail will be immediately furnished in his behalf. An attorney will also be placed at his disposal for defense. The first appearance of such attorney will be free of charge. Subsequent services will be paid by the member, but at a rate considerably less than usually charged.

3. Should the car of an owner be under repair, or in any way temporarily out of commission, the association will rent him

## COMING EVENTS

November 3-5, Atlanta, Ga.—Atlanta Automobile Association's fall meet on Speedway.

November 4-6, Kansas City, Mo.—Race meet under auspices Kansas City automobile dealers.

November 5, Los Angeles, Cal.—Los Angeles-Phoenix (Ariz.) desert road race.

November 5-6, New Orleans, La.—Automobile meet.

November 7-11, Chicago, Ill.—Reliability contest under auspices of Chicago Motor Club.

November 8, Yonkers, N. Y.—Mount Vernon Automobile Club's racemeet at Empire track.

November 10-13, San Antonio, Tex.—San Antonio Automobile Club's races at International Fair grounds.

November 11, Savannah, Ga.—Savannah Automobile Club's light-car road race.

November 12, Savannah, Ga.—International road race for the Grand Prize of the Automobile Club of America.

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, New Orleans, La.—Race-meet under auspices of New Orleans Automobile Club.

November 26-27, Los Angeles, Cal.—Motordrome races.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal.—Twenty-four hours race at Motordrome.

December 31-January 7, New York City—"Independent" automobile show in Grand Central Palace.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 15-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-22, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

February 25-March 4, Toronto Canada—Annual show under auspices of Ontario Motor League.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

April 1-8, Montreal, Can.—Annual show in Coliseum.

another at the uniform rate of \$3.00 per hour. The same privilege will be extended to those members who, through accident, are compelled to abandon their own cars and being desirous to continue their journey would otherwise have to pay a high price for a machine from some outside source. In case of accident and another car being required, the same will be despatched on receipt of phone message, to the point of breakdown, provided the same is within the 10-mile radius.

### Where Automobile Figures in Fatality List.

Statistics prepared by the United States Government concerning the number of fatal accidents during 1909 show that the motor car is practically at the bottom of the list, which follows: Railroads, 6,659; burns, 3,992; horse-drawn vehicles, 2,152; mines and quarries, 1,997; poisonous gases, 1,837; other poisons, 1,779; electric cars (trolleys), 1,723; sunstroke, 816; automobiles, 632; freezing,

251; lightning, 150; homicides, 1409. Putting it in another light, automobiles caused but 2.8 per cent. of the accidents of 1909 as against 9.6 per cent. for the horses.

### Rowe has a "High Score" Tire Record.

C. W. Rowe, of Watsonville, Cal., is another motorist who has entered the "high score" class of tire users. He reports that one of the four Diamond tires on his Garford car purchased in June, 1907, lasted 18,000 miles and another 16,000 miles. The St. Louis record of 18,000 miles without reinflation, however, remains untouched.

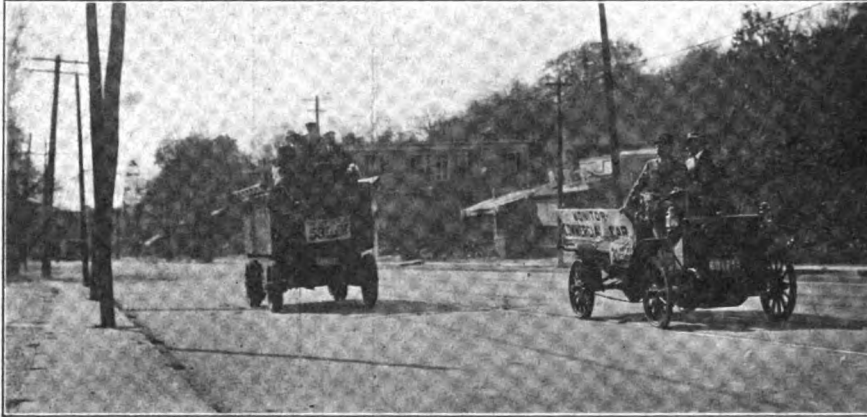
### More Motor Cars for Mail Service.

Finding the work of the automobile in the postal service highly satisfactory, Postmaster General Hitchcock has signed an order for seven additional automobiles to be used in Cleveland and Indianapolis. The buying of these cars had been recommended by the postmasters of the respective cities.

**MR. HEARST HOLDS BACK AWARDS**

**Wants Results of His New York "Test" for His Sunday Edition—How the Affair Shaped Up.**

Chapter II—the New York chapter—of the Hearst motor truck stunts was distinguished in two ways; first by the great variety of commercial vehicles that it called forth, whereby it was rendered useful as



WHEN A "LITTLE FELLOW" PASSED A BIG ONE—A GENERAL ELECTRIC AND A MONITOR

affording a broad contrast of types, and second by reason of the generous patronage afforded it by the electric vehicle people, both manufacturers and owners. From Mr. Hearst's own peculiar point of view, however, it is likely that the contest may not have been considered as successful as the Boston run, for the reason that, although there were more entries, there were fewer advertisements obtainable in the editions of the paper carrying accounts of the undertaking.

The contest was run on Friday and Saturday of last week, 28th and 29th ult., but no one who depended upon any except the Hearst newspapers for his information, or who did not happen to cross the trail of the contest, would have known it as none of the other New York papers mentioned the affair. It was split up into 16 divisions, which means that 16 first prizes are coming to as many contestants when the final results are announced. Under some circumstances the decision might have been expected even before now—the results of the corresponding and simultaneous contest in Chicago were published on Monday—but it has been stated that the ampere-hour meters, which were used in computing the scores of the electrics, have been sent to a laboratory to be calibrated, so that the final announcement cannot be expected before next Sunday.

Fifty-seven trucks were entered in the various classes, but only 49 actually started. Of this number but 27 escaped with clean road scores. Fourteen of the clean score division were gasoline propelled and 13 were electrics. The final results depend

upon the relative amounts of gasoline and oil consumed per ton mile and the number of kilowatts of energy used from the batteries of the electrics; in each case the consumption of supplies will be reduced to a money basis, the lowest cost per ton mile in each class to denote the winner.

In arranging the classifications, two broad divisions were established, one for machines intended to be used in transporting loads in bulk between central stations and distributing points, and hence designated as

the transfer class, and the other for machines which are suitable to be used in house-to-house delivery, and hence known as the distributing class. Provision was made for the independent competition of trucks entered by manufacturers and those supplied by private owners, while all vehi-

north on Broadway to Yonkers, Mount Vernon and New Rochelle, the routes varying slightly for the various divisions of the distributing class, and returning to New York. The transfer class continued beyond Yonkers to Dobbs Ferry, and Ardsley, crossing over to White Plains and Port Chester and returning to New York.

The day resulted in a considerable reduction in the number of contestants, no less than 11 machines being disqualified and two withdrawn. The Brush, Walter and Hewitt trucks, suffering disqualification for taking the wrong route, despite the advantages of a carefully prepared and very clear road book; the big Gaggenau truck took on an extra supply of gasoline outside the official station, and one of the Grabowskys failed to make the required number of stops. Among the electrics, six of the General Vehicle machines suffered disqualification in consequence of recharging batteries. In addition, one of the Lansden vehicles suffered from a short-circuited armature and was withdrawn, while the Chicago failed to finish the day's run.

Four cars were penalized. The Sampson, entered in division 4 in the manufacturers' class, lost 37 points for adjustment. Later, it was claimed in a protest filed by the Alden Sampson Co., that the adjustment was permissible under the rules, and that the delay, necessitated by adjustments to a brake shoe, was not subject to penalization. The Kelly truck, in the same class, had ignition trouble and lost 11 points; the General Vehicle, in the 1,000 pounds and under transfer class, was delayed by re-



THE HART-KRAFT TRUCK WHERE THE GOING WAS GOOD

cles were subdivided according to the weight classification sanctioned by the American Automobile Association. In pursuance of the principle of the class distinction, the transfer trucks were forced to cover 65 miles a day with full load. The distributing machines, while covering only 30 to 40 miles, were obliged to make 16 to 100 stops each, exactly as they would do in everyday service.

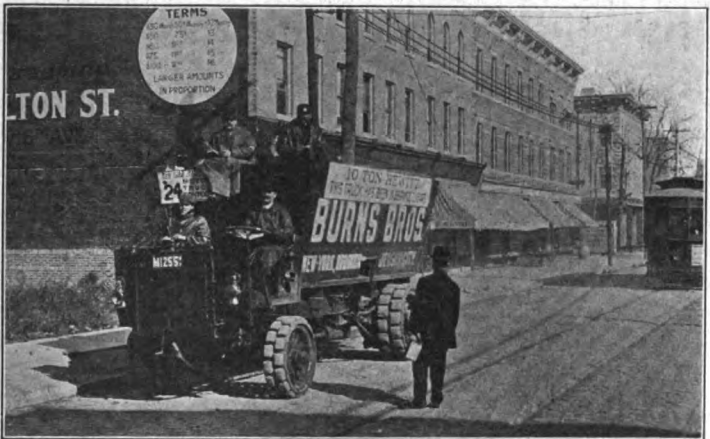
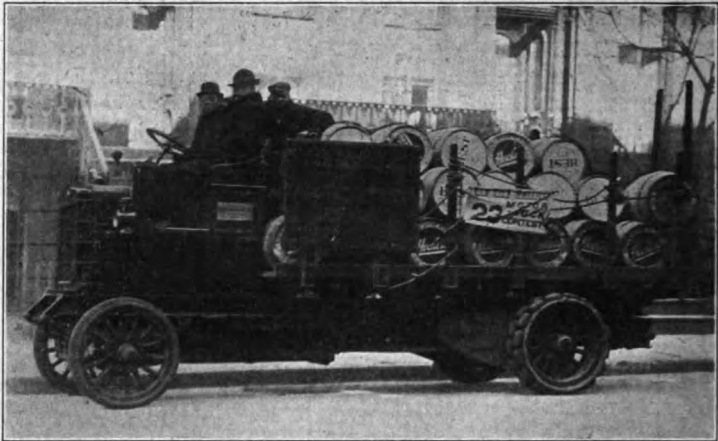
The first day's route lay south on Broadway from the New York Transportation Co.'s garage on 50th street, and thence

pairs to a wheel and lost 92 points; and another wagon of the same make, entered in the owners' section by the United Electric Light & Power Co., was penalized 31 points for tardiness.

The route for the second day lay across the Queensboro bridge and through Elmhurst to Jamaica, returning by way of Long Island City, Brooklyn and Brooklyn bridge, slight variations in the route being made to accommodate the different mileage requirements of the entrants in the distributing class. The transfer class reached

THE MOTOR WORLD

CONTRASTING TYPES IN CHAPTER II OF THE HEARST TRUCK TESTS.







EVERYBODY THERE SAW THE KELLY; IT WAS A BIG ONE



"MARY ANN," AN ELECTRIC, WELL LOADED—WITH BEER

Jamaica by the roundabout way of Lynbrook, Rockville Center and Hempstead, returning over substantially the same course as that taken by the other machines.

But three vehicles dropped out during the day, all of them being of the gasoline persuasion, and one, the Kelly, being disqualified for taking on gasoline; it also had had ignition difficulties. The Knox truck withdrew with a burned out connecting rod bearing, and the Cass truck was withdrawn in consequence of broken wheel bearings.

In the way of penalties, the largest was that assessed upon the Victor for tardiness and work on a steering arm—422 points. The only other car penalized was the British Atlas, which lost 30 points for work done on the magneto.

By way of adding spice to the interest in the contest as such, several of the competing machines were noteworthy in one way or another. "Mary Ann," otherwise one of the General Vehicle trucks entered by the Central Brewing Co., was nine years old, being the first motor vehicle put into service by the latter concern, and possessing a worthy record for continuous and efficient work. P. Daussa & Co., of Brooklyn, entered a wagon of the same make credited with seven and one-half years of

duty in hauling macaroni. In addition there were oddities in the way of a Brooklyn bake cart and a New York milk wagon. The biggest machine in the contest, the ten-ton Hewitt, with its load of coal, weighed nearly 30,000 pounds, thereby establishing a broad contrast with the little Brush entry, whose official load weighed just 600 pounds.

Most of the vehicles were entered by New York and Brooklyn owners or agents, but one, the one-ton Grabowsky, had been driven over the road all the way from Detroit in order to participate. In doing so, it was said to have made an average speed of 18 miles an hour, carrying its full load, and equipped in exactly the same way as when it entered the contest. Unfortunately for its record, this truck was disqualified on the second day, as already stated.

As a sequel to the contest the entrants of both the Hewitt and Gaggenau trucks have protested. Incidentally the point has been raised by one of them that the Morgan truck, the third competitor in the same class, did not cover the course properly on the second day of the contest. Up to the present time, however, the referee is not reported to have taken action.

The following table gives the complete list of starters, their road penalties for the

first and second days and the causes that led to the withdrawal and disqualification of those that did not survive.

#### MANUFACTURERS' SECTION.

##### Gasolene.

##### Transfer Classes.

##### Division 1—1,000 pounds and under.

	Penalties	
	1st Day	2d Day
Car and Entrant		
Chase, Chase Motor Truck Co....	0	0
Hatfield, Hatfield Co.....	0	0
Hatfield, Hatfield Co.....	0	0
Brush, John Moore & Co.....	*	0

\*Disqualified for taking wrong route.

##### Division 2—1,001 to 3,000 pounds.

Atterbury, Ladue Carmer Co....	0	0
Victor, Victor Motor Truck Co....	0	422
Grabowsky, Motor Car Maintenance Co.....	0	*

\*Disqualified for taking on oil.

##### Division 3—3,001 to 5,000 pounds.

Renault, Renault Selling Branch...	0	0
Kelly, Kelly Motor Truck Co....	0	0
Walter, Walter Auto Truck Co....	*	0

\*Disqualified for taking wrong route.

##### Division 4—5,001 to 8,000 pounds.

Alco, American Locomotive Co..	0	0
Grabowsky, Grabowsky Power Wagon Co.....	0	0
Atlas, General Acoustic Co.....	0	20
Sampson, Alden Sampson Mfg. Co. ....	37	0



ALCO TRUCK IN THE SERVICE OF ITS MANUFACTURERS



THE CASS MAKES ITS DEBUT IN THE METROPOLIS

Knox, Knox Automobile Co..... 0  
 \*Withdrawn, connecting rod trouble.  
 Kelly, Kelly Motor Truck Co..... 11  
 \*Disqualified for taking on gasoline.

#### Division 5—10,000 pounds and over.

Morgan, R. L. Morgan Co..... 0  
 Hewitt, Metzger Motor Co..... \*  
 \*Disqualified for taking on gasoline.  
 Gaggenau, Benz Import Co..... \*  
 \*Disqualified for taking on gasoline.

#### Distributing Classes.

##### Division 1—1,000 pounds and under.

Brush, John Moore & Co..... 0  
 Hart-Kraft, Hart-Kraft Motor Co. 0

##### Division 2—1,001 to 3,000 pounds.

Monitor, Flanagan Motor Co.... 0  
 Grabowsky, Grabowsky Power Wagon Co. .... 0  
 Cass, Cass Motor Truck Co..... 0  
 \*Withdrawn, broken wheel bearings.  
 Grabowsky, Commercial Maintenance Co..... \*  
 \*Disqualified for not making all stops.

#### Electric.

##### Transfer Classes.

##### Division 1—1,000 pounds and under.

General, General Vehicle Co..... 92

##### Division 2—1,000 to 3,000 pounds.

Lansden, Lansden Co..... \*  
 \*Withdrawn, short-circuited armature.  
 General, General Vehicle Co..... \*  
 \*Disqualified for charging battery.

##### Distributing Classes.

##### Division 2—1,001 to 3,000 pounds.

Lansden, Lansden Co..... 0

#### OWNERS' SECTION.

##### Gasoline.

##### Distributing Classes.

##### Division 2—1,001 to 3,000 pounds.

Autocar, John Wanamaker..... 0

##### Electric.

##### Division 1—1,000 pounds and under.

General, New York Edison Co.... \*  
 \*Disqualified for charging battery.

##### Division 2—1,001 to 3,000 pounds.

Lansden, Abraham & Straus.... 0  
 Lansden, R. H. Macy & Co..... 0  
 General, J. Meyer..... 0  
 General, United Electric Light & Power Co..... 31  
 General, General Electric Co..... \*  
 \*Disqualified for charging battery.

General, New York Edison Co.... \*  
 \*Disqualified for charging battery.

##### Division 3—3,001 to 5,000 pounds.

General, New York Edison Co.... 0  
 Chicago, Brooklyn Edison Co.... \*  
 \*Withdrawn.

##### Division 4—5,001 to 8,000 pounds.

General, New York Edison Co.... 0  
 General, A. D. Shaw & Co..... 0  
 General, Borden Milk Co..... 0  
 General, United Electric Light & Power Co..... 0

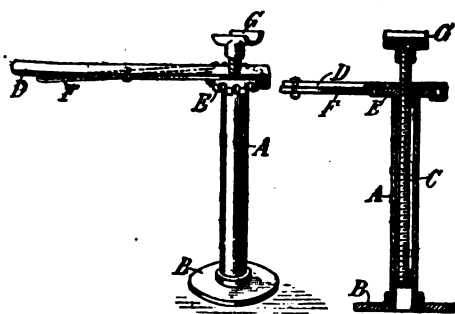
\* Commercial, John Wanamaker.... 0  
 General, P. Daussa & Co..... \*  
 \*Disqualified for charging battery.  
 \* General, Central Brewing Co..... \*  
 \*Disqualified for charging battery.

##### Division 5—10,000 pounds and over.

General, New York Edison Co.... 0  
 General, Central Brewing Co.... 0  
 General, Brooklyn Edison Co.... 0

#### Pipe to Make an Automobile Jack.

Ordinary pipe fittings can be utilized in making a very serviceable automobile jack, according to Robert H. Brockman, who describes the method in the Scientific American. Its construction, he says, calls for a piece of 1-inch pipe A, about 10 inches long, to one end of which a flange is secured which serves as the base of the jack. Within this pipe insert a ½-inch pipe C, 12



inches long, threaded throughout its length, and fit a cap to the lower end. Bend a bar of iron, about 15 inches long and ¼ by 1¼ inches, as shown in illustration, and bore a hole through it which will freely admit the pipe C. Screw a flange E down over the pipe C on to pipe A. The bar D fits over flange E, and one end is hooked under it. File notches in this flange to receive a pawl F, which consists of a piece of ¾ by ¼-inch iron 8 inches long. Secure the latter at its center to the bar D by means of a screw. In use, as the bar D is operated, the pawl F engages the notches of the flange, causing the latter to feed the pipe C upward. A rest, G, which is made by cutting off a portion of a 2-inch tee, is placed at the top of the pipe C. When it is desired to reverse the jack, the pawl E is swung about on its axis to engage the notches at the other side of the bar D.

#### Trucks that Earned Hearst's Honors.

Results of Chapter I of William Randolph Hearst's motor truck tests, tardily announced in Boston, reveal clean road scores for all but two Metz cars, the Reliance delivery wagon and the 1½ ton Frayer-Miller truck. The six private owners' cars that finished the two days contest, October 21-22, all were free from road penalization. In the machines of 1,001 to 2,999 pounds capacity, and less, the Warren-Detroit won with a fuel and oil cost of 2.48 cents per ton mile. The Franklin, the only air-cooled car

in the contest, triumphed in the class for machines of 1,001 to 2,999 pounds capacity, its cost figure being 0.68 cents per ton mile. To the Frayer-Miller truck, renamed the Kelly, went the distinction of winning two classes of the manufacturers section, its figure for the 3,000 to 5,999 pound division being, 1.46 cents and in the 6,000 to 7,999 division, 0.91 cents. In the class for five tons trucks, the Sampson entry captured the honors with a net expense for supplies of 1.15 cents per ton mile. In the private owners' class, the Autocar and Frayer-miller entries achieved the best results in their respective divisions, the former being credited with 1.03 cents, and the latter with 1.30.

#### For Prevention of Elevator Accidents.

Prompted by an accident wherein one man was killed and his car demolished by entering an open elevator shaft, a garage owner has built a contrivance to avoid any similar catastrophe in his own building. The elevator when down, lies flush with the floor. Out of the floor at the end upon which the cars enter the elevator, he cut a section of the floor boards and beams, large enough to allow a heavy oak plank about 10 by 3 inches and as long as the width of the elevator, to lay in flush. This heavy plank is hinged to the floor and when the elevator rises, leaving the heretofore unprotected opening of the shaft, it is brought to an upright position and securely locked. The progress of any automobile that entered before the elevator was lowered would therefore be stopped and an accident averted if the driver had not seen the opening or did not happen to apply his brakes in time.

#### French Trucks that Receive Subsidies.

Six different makes of trucks have received official authorization by the French war department, and in consequence, the owners of such machines are entitled to the subsidy which is granted in consideration of an agreement to release the vehicles for military service in the event of their being required. The announcement is based on the performance of the trucks in the recent industrial motor vehicle trials, the machines endorsed in this way being the Panhard, DeDion, Berliet, Delahaye, Peugeot and Vinot.

#### Giving Credit Where Credit is Due.

One of those slips of the pen which occasionally occur, made the Motor World say in one portion of its report of the Fairmount Park road race that V. Padula, who won the 161-230 cubic inches class, drove a Warren-Detroit, when as a matter of fact he piloted an Abbott-Detroit. However, as his correct mount was named in several other parts of the same story, there would not appear much room for anyone to place the credit elsewhere than where it belongs.

## TRUCK "DASHES" IN CHICAGO

Hearst's Western Effort Sportier than Those in East—It was Scored on Endurance Contest Basis, Too.

Chapter III—the Chicago chapter—of the Hearst motor truck stunts was somewhat different from the other chapters. It was run very much on the lines of an endurance contest, and although the formalities of weighing-in and measuring the fuel and oil consumed were observed with due dignity, the results were set down in the form of road and technical penalties and the treatment accorded the competitors on the road was virtually the same as though they had been engaged in a race for heavily laden vehicles, with certain "speed limits" understood to assist in classification. Chapter III also appears to have been the most remunerative of the series, as it required a special supplement in the promoter's Chicago newspaper to carry all the advertisements the benevolent Mr. Hearst's emissaries had been able to collect, when the final scores were posted on Monday morning.

The test, officially styled the Chicago Evening American's commercial motor truck reliability run—conducted under the auspices of the Chicago and the Milwaukee automobile clubs—was run on Friday and Saturday last, 28th and 29th ult., over the Chicago-Milwaukee course, making a distance of about 215 miles. Of something like 58 entrants, 54 actually started, and 37 finished, all but two of them being entitled to the designation "survivor."

After the technical committee had passed upon the condition of the machines, but three perfect scores remained, namely those of the Brush and Sears, which were tied for first place in Class 1, and the Gramm in the division for trucks of 4,001 to 6,000 pounds capacity. In Class 2, the winning Cino lost its one point through the technical committee's conscientiousness in bringing to notice a leaking water pump. The Grabowsky, winner in Class 5, also lost one point, because of a slack lock nut on the rear axle.

The winners in the other classes did not fare so well. The Sampson, for example, lost 30 points on the first day as a result of breaking through a light bridge at South Milwaukee. On the second day more time was lost in reconnoitering about the site of another bridge to see whether that was safe. The consequent assessment was 24 points. Later the first penalty was remitted because it was deemed no fault of the truck that the bridge broke. The truck, therefore, won with the remaining 24 points against it. The other two winners were the Chicago Motor Wagon, 10 points, in Class 3, and the Rapid, 19 points, in Class 4.

The schedules, which overlapped the weight distinctions in several instances, called for speeds of 14, 12, 10, and 8 miles an hour, respectively. Penalties were assessed for deviations from the scheduled rates as denoted by arriving times at checking stations, but the enthusiastic journalists

was ice on the ground. Hence it happened that, as the Commercial Truck company's Chicago Commercial car was hastening around a corner near the Kenosha garage, it skidded, and skidding struck the pace-maker's car a blow that put it out of business and nearly did for the official himself.

## Class 1—500 Pounds and Under.

Car and Entrant.	Load Carried.	Speed M.P.H.	First Day. Time Tech.	Second Day. Time Tech.	Exam. Tech.	Total Penalty.
Sears, Sears Motor Co.	500	12	0	0	0	0
Brush, Brush Chicago Motor Co.	500	10	0	0	0	0
Ranger, Ranger Auto Co.	500	12	0	159	0	Withdrawn

## Class 2—501 to 1,000 Pounds.

Cino, Haberer & Co.....	1,000	14	0	0	0	0	1	1
Buick, Buick Motor Co.....	1,000	10	0	0	0	0	5	5
Alden Sampson, Alden Sampson Co.....	1,000	12	0	0	0	0	5	5
International, International Harvester Co..	1,000	12	0	0	0	0	7	7
Overland, Willys Overland Co.....	800	14	0	0	0	0	11	11
International, International Harvester Co..	1,000	12	0	5	0	7	8	20
Buick, Buick Motor Co.....	1,000	14	0	3	28	0	2	33
Economy, Economy Motor Car Co.....	1,000	10	0	16	0	15	35	66
Sears, Sears Motor Car Co.....	600	12	0	..	0	Withdrawn		

## Class 3—1,001 to 2,000 Pounds.

Chicago, Chicago Motor Wagon Co.....	1,500	10	0	3	0	4	3	10
Rapid, Rapid Motor Vehicle Co.....	2,000	10	0	0	0	0	11	11
Overland, Willys Overland Co.....	2,000	12	0	11	0	0	1	12
Utility, Stephenson Motor Car Co.....	2,000	10	0	15	0	0	1	16
Randolph, Randolph Motor Car Co.....	2,000	10	0	6	0	0	25	31
Randolph, Randolph Motor Car Co.....	2,000	10	0	33	0	0	..	33
Marquette, Marquette Motor Vehicle Co...	2,000	10	0	13	0	22	0	35
Monitor, Monitor Auto Co.....	2,000	10	0	44	0	134	0	178
Chicago Commercial, Chicago Com. Car Co.	2,000	10	0	77	0	0	Disqualified	
Ranger, Ranger Auto Co.....	1,500	10	0	..	0	Withdrawn		

## Class 4—2,001 to 3,000 Pounds.

Rapid, Rapid Motor Vehicle Co.....	3,000	10	0	0	0	0	19	19
Rapid, Rapid Motor Vehicle Co.....	3,000	10	0	4	0	3	14	21
U. S. Motor, United Motor Co.....	3,000	10	0	0	0	0	31	31
Atterbury, W. B. Ingwersen.....	3,000	10	0	6	174	9	..	189
Harder, Harder Fire Proof & Storage Co..	1,000	10	0	109	0			Withdrawn
U. S. Motor, United Motor Co.....	3,000	10	0	..	0			Withdrawn

## Class 5—3,001 to 4,000 Pounds.

Grabowsky, Grabowsky Power Wagon Co.	4,000	10	0	0	0	0	1	1
Mais, Mais Motor Truck Co.	4,000	10	0	0	0	0	14	14
Kelly, Kelly Motor Truck Co.	4,000	10	0	31	0	2	0	33
Nelson Le Moon, Nelson Le Moon Co.	4,000	10	0	0	0	77	..	77

## Class 6—4,001 to 6,000 Pounds.

Gramm, Gramm Motor Car Co.....	6,000	8	0	0	0	0	0	0
Rapid, Rapid Motor Vehicle Co.....	6,000	8	0	3	0	0	0	3
Kissel, Kissel Kar Co.....	6,000	8	0	8	0	0	7	15
Alco, Amer. Loco. Co.....	6,000	8	0	13	0	2	0	15
Knox, Knox Auto Co.....	6,000	8	0	11	0	0	8	19
Kelly, Kelly Motor Truck Co.....	6,000	8	0	21	0	0	0	21
Herman, Herman Bros.....	6,000	8	0	12	0	3 Withdrawn		
Kelly, Kelly Motor Truck Co.....	6,000	8	0	12	0	Withdrawn		

## Class 7—6,001 to 10,000 Pounds.

Alden Sampson, Alden Sampson Co.....	8,000	8	0	20	0	3	1	24
Reliance, Reliance Motor Truck Co.....	10,000	8	0	0	0	41	0	41
Reliance, Reliance Motor Truck Co.....	7,000	8	0	38	0	33	0	71
Reliance, Reliance Motor Truck Co.....	7,000	8	0	Withdrawn				

Also started: Class 2—Hart-Kraft, Chicago Pneumatic Tool; Class 3—Chicago Commercial, Owosso, Marquette, Randolph; Class 5—Rapid.

who accompanied the run, drew glowing pictures of the cars "dashing" from point to point, and of the "excellent time" made. All of which confirms the impression of eye-witnesses to the effect that the figures 8, 10, 12 and 14 were used in a very liberal way for purposes of average.

It was bitterly cold during the two days of the run, and also, in Milwaukee, there

He pulled himself together, however, and promptly commandeered another car, but the Commercial was disqualified. F. Ed. Spooner, the photographer, who, as usual, was on the spot, also was struck by the Chicago, but escaped with a few bruises.

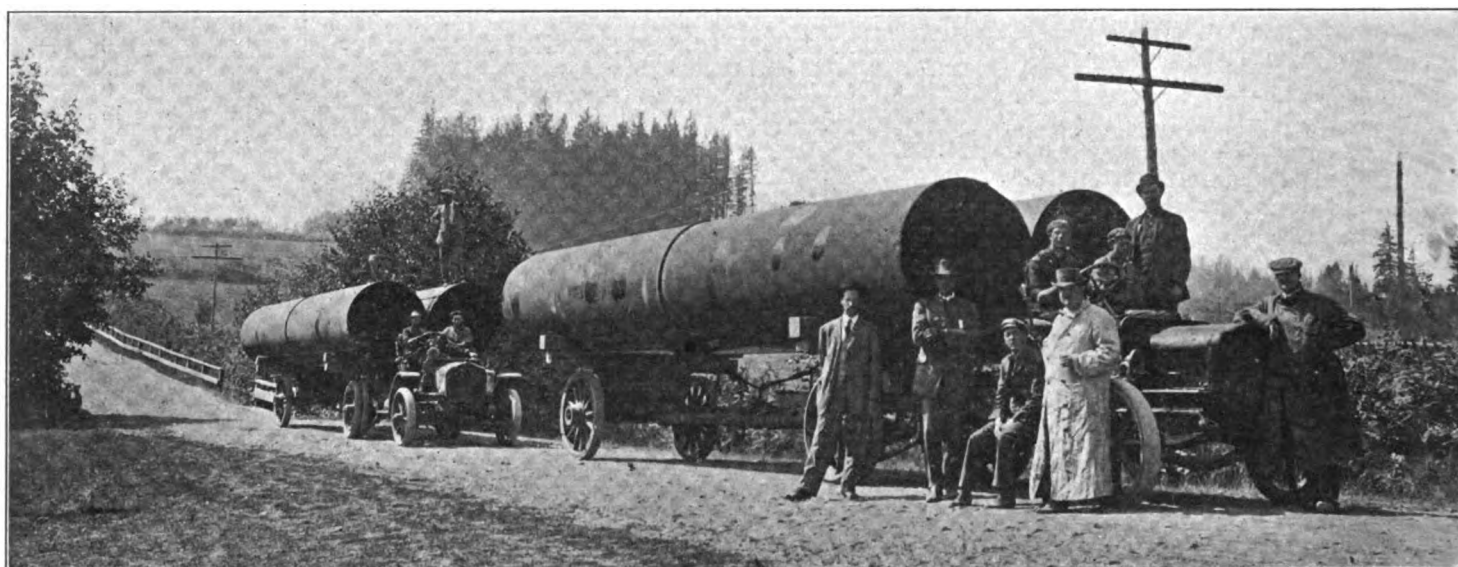
The trucks started from Plew's garage, 2613 Wabash avenue, at 6 o'clock in the morning, after having been officially

weighed and sealed the night before, and checked out at the Automobile Club headquarters. Kenosha was the noon control and though many of the trucks were delayed by the deep sand between Zion City and that point, all succeeded in checking in without serious loss of time. Four trucks had been entered from Milwaukee, namely the Utility, Kissel, Brodesser and Hart-Kraft, and in consequence the local interest in the contest was even greater when the night stopping place was reached than it had been along the course. The combined effects of the sandy roads and mechanical troubles cut down the list of perfect scores to 14 at the end of the first day. The penalties arbitrarily announced were as follows:

Considerable interest was added to the undertaking by reason of the presence in one of the cars of Col. W. A. Glassford, U. S. A., who had been detailed from the Quartermaster's department to observe the performance of the trucks. The official organ of the contest observes that this "means that the government will supplant horse conveyances with motor trucks." Col. Glassford himself was so impressed with the success of the affair that he could not be restrained from talking for publication, and of course Mr. Hearst's bright young men were only too happy to have him talk. He is quoted as having remarked:

"The Hearst newspapers are great papers. They are full of enterprise. It is such things as this that show the 'get-up' of a

purpose with trailer attachments. The accompanying illustration shows two of the trucks in service, each loaded with two lengths of pipe and standing on one of the grades that has to be ascended. Each length of pipe is 30 feet long and weighs 6,600 pounds, the load, therefore, weighing approximately six and one-half tons, about half of which must be carried by the truck. The traction for the entire load, of course, must be supplied by the engine, so that the work involves continuous duty far in excess of the rated output of the machines, and at very low speeds. The capacity of the outfit is eight lengths of pipe hauled every 24 hours, and but four men are required to handle it. The old way, each man driving four horses would require 24 hours



WHITE TRUCKS THAT HAUL 6½ TON LOADS OVER 17 MILES OF OREGON MOUNTAIN HIGHWAY

Buick (3), Overland (39), Harder (109), Rapid (4), Randolph (14), Economy (16), Utility (15), International Harvester (5), Overland (11), Randolph (6), Chicago Commercial (77), Randolph (33), International Harvester (34), Chicago Motor (3), Nelson and Le Moon (1), Marquette (13), Herman (12), Atterbury (6), Kissel (8), Knox (1), Kelly (31), Reliance (35), Monitor (46), Kelly (21), Kelly (12), Rapid (3), Sampson (30) and Alco (13).

The only real accident of the day to be reported was that to the car of the chief checker, which turned turtle at Evanston as a result of a skid. No one was seriously hurt.

On the return trip Saturday, all of the cars that started back reached Kenosha, the route having been changed in consequence of the bad roads encountered on Friday, and all but two of the machines that finished covered the last stage of the trip in good form, reaching Chicago in mid-afternoon. The Sampson truck was delayed by the bridge-testing exploit of its crew, while the 3-ton Frayer-Miller, as a result of engine trouble, was abandoned at Kenosha.

newspaper." He further observed: "The horse is passing away. There can be no doubt of this in anyone's mind who has studied the matter."

The final results of the contest are given in the table on the preceding page.

#### Daring Use for Four Motor Trucks.

Schaw-Batcher-Bowles, contractors of Portland, Ore., have succeeded in getting rather more economy out of motor truck service than commonly is expected by a daring application of mechanical traction to a class of work that hitherto has been supposed possible only by the use of horses. The Portland contractors have a contract for hauling 52-inch iron pipe for the new Bull Run pipe line which is to supply the city with water from Mount Hood. The haul is 17 miles from Gresham to Bull Run Post Office, over mountain roads, and the contract was secured on bids made in anticipation that horses would be employed, as a matter of course.

After some figuring, however, it was decided to attempt a typically western stroke of business by purchasing four White gasoline trucks and rigging them up for the

to haul a single length. The White equipment therefore replaces eight men and 32 horses.

Naturally, under the circumstances, the White Company, builder of the machines, is not prepared to warrant the service of the vehicles for an indefinite period; since they are greatly overloaded and forced to work on low gear the greater part of the time. But, as is pertinently indicated, when the operator is enabled to save something like \$8,000 a month by their use, he is not apt to worry if they prove very short lived indeed; he could buy a new machine every month and still save not only time but money.

#### Town Responsible for Dangerous Road.

It has cost the little town of Salem, Wis., \$1,500 for maintaining a dangerous highway. E. Collier, a motorist, who was badly injured by being hurled down a steep embankment, having been awarded that sum for damages. A jury found the town board guilty of extreme neglect for refusing to widen the road at the point of danger. In the accident in which Collier was hurt, his companion was killed.



**DALLAS DERBY GOES TO DE HYMEL**

**He Also Picks the Other Big Plums at Texas Meet—Fatal Accident and Some Queer Proceedings.**

Tobin De Hymel in a Stoddard-Dayton, George H. Clark in a Cutting and Fred Malone in a Buick accounted for every race run at the three days' meeting, October 27-29, which comprised part of the program of the Texas State Fair in Dallas. the brothers Endicott—Bill and Harry—driving Coles, were fairly consistent runners-up. De Hymel, a native Texan, who just had returned from an Eastern campaign which included the Vanderbilt and Fairmount Park races, was the biggest winner. He captured six of the 12 events; Clark took four and Malone the other two. De Hymel's victories included all of the feature events save the 50 miles on the first day, which he probably would have won but for three attacks of tire trouble. He lost nearly ten miles because of these delays, and yet finished but four miles behind the winner, Clark, who completed the 50 miles in 52:38. Clark was the king pin on the first day, winning three of the four events. On the second and third days, however, De Hymel was unbeatable. He won everything he went after, including the hour race, which was marked by a fatal accident; the ten miles handicap in which starting alone from scratch he gave away starts up to 40 seconds; the 50 miles Dallas Derby, and the ridiculously-styled one mile State Championship, which consisted of time trials of three miles, the fastest mile of which decided the "champion." They appear to have queer ideas of both mile trials and championships in Dallas, as the same absurd procedure was employed at last year's racemeet.

The hour race was the feature of the second day, 28th. Five men started, De Hymel, Clark, "Bill" Endicott, Phil Wells (Moon) and Gaston Morris (Renault). De Hymel promptly took the lead and Wells was in second position on the fifth mile when a front tire on Morris's Renault blew out and caused the car to crash into the fence. Morris was thrown clear and landed uninjured on the turf, but his mechanic, Raymond Coch, who was seated on the step of the car and who had been performing the now obsolete trick of "balancing" the car on the turns, was crushed so badly that he died a few hours later. The race was stopped and restarted and went for 46 miles with De Hymel again leading all the way and Wells in second place, when another accident occurred, Wells being the victim. A front tire blew out and his Moon crashed into an electric light pole. Well's body struck the pole but, strange to say, when hurried to the hospital no bones were found

to be broken and save for bruises and lack of feeling in his lower limbs he was uninjured. Well's accident put a stop to the race. When the spill happened De Hymel was half a lap in front of Wells; Clark was three miles behind and Endicott five miles to the bad. The money was awarded on this positioning, Wells thus winning a purse despite his fall. De Hymel completed the 46 miles in 46 minutes. The Dallas meet had been preceded by another fatality, a motorcyclist having been killed on the 26th while practicing on the track and eight on-lookers injured on the 23d when a car while tuning up ran wild in trying to avoid a motorcyclist who had stopped on the track to pick up his cap.

The Dallas Derby on the last day, 29th, was the big event of the meet, the prizes being \$500, \$250, \$125 and \$50, with \$25 for the leader at 25 miles. The distance originally fixed was 100 miles, but this was cut to 50, and as the officials appeared to be panic-stricken by the happenings of the day previous, it was announced that in order to prevent accident the cars would be required to stop for examination at the end of 25 miles. De Hymel, Clark and the two Endicotts started and as usual De Hymel promptly went off in front where he remained until the nineteenth mile, when he was forced to stop for a repair. It was quickly made, however, but meanwhile Clark and Bill Cole passed De Hymel; they reached the 25 miles point in that order, Clark leading in 26:01 and thereby gathering the special prize of \$25. After the "stops for inspection" Clark led until the forty-third mile, when he developed engine trouble and went down and out. De Hymel who had been making up lost ground then went to the front and stayed there, completing the 50 miles in 51:10, not counting five minutes spent for the unusual "inspection." Bill Endicott finished second and his brother Harry third. The summaries:

**Thursday, October 27th.**

One mile time trials, stock chassis—Won by Geo. H. Clark, Cutting; Phil Wells, Moon, second; "Bill" Endicott, Cole "30," third. Time, 1:00¾.

Ten miles, stripped stock chassis.—Won by Fred Malone, Buick; Harry Endicott, Cole "30," second; "Bill" Endicott, Cole "30," third. Time, 10:43¾.

Five mile free-for-all.—Won by Geo. H. Clark, Cutting; Harry Endicott, Cole "30," second; "Bill" Endicott, Cole "30," third. Time, 5:27¾.

Fifty miles, stripped chassis.—Won by Geo. H. Clark, Cutting; Phil Wells, Moon, second; "Bill" Endicott, Cole "30," third; Tobin De Hymel, Stoddard-Dayton, fourth. Time, 52:38.

**Friday, October 28th.**

Ten mile free-for-all, handicap.—Won by Tobin De Hymel, Stoddard-Dayton; Geo. H. Clark, Cutting, second; "Bill" Endi-

cott, Cole "30," third; Harry Endicott, Cole "30," fourth; Phil Wells, Moon, fifth; Fred Malone, Buick, sixth. Time, 9:51¾.

Ten mile free-for-all.—Won by Tobin De Hymel, Stoddard-Dayton; Phil Wells, Moon, second; Geo. H. Clark, Cutting, third; Sanders, Moon, fourth. Time, 10:02.

One hour free-for-all, stripped chassis.—Won by Tobin De Hymel, Stoddard-Dayton; Phil Wells, Moon, second; Geo. H. Clark, Cutting, third; "Bill" Endicott, Cole "30," fourth. Race stopped in forty-sixth mile on account of accident.

**Saturday, October 29th.**

One mile time trials for "state championship," Class E—Won by Tobin De Hymel, Stoddard-Dayton; second, Geo. H. Clark, Cutting. Time, 1:02.

Five miles handicap, Class B—Won by Fred Malone, Buick (10 seconds); second, Bill Endicott, Cole "30" (15 seconds). Time, 5:15¾.

Five miles, stock chassis, Class B—Won by Clark, Cutting; second, "Bill" Endicott, Cole "30," third, Harry Endicott, Cole "30." Time, 6:14.

Five miles open, Class C—Won by De Hymel, Stoddard-Dayton; second, Clark, Cutting; third, Malone, Buick; fourth, Labadie, Hudson. Time, 5:16.

Fifty miles, Dallas Derby, stripped chassis, Class E—Won by De Hymel, Stoddard-Dayton; second, "Bill" Endicott, Cole "30," third, Harry Endicott, Cole "30," fourth, Clark, Cutting. Time, 51:10. Clark, Cutting, won prize for fastest 25 miles in this race.

**Visitors Capture the Prizes at Peoria.**

What was styled the T. J. Nertney Automobile Racing Association, of Ottawa, Ill., and the Peoria Motorcycle Club, were responsible for the mixed racemeet held on the Peoria (Ill.) mile track on Thursday last, 27th ult., which was poorly attended and furnished indifferent sport. Three automobile events were carded, but one failed to fill. The 15 miles race for 30 horsepower cars was won by Roy Sawyer, of Sandwich, Ill. (E-M-F), in 17:03; Hall, of Peoria (Stoddard-Dayton), was second. Sexton (Ford) and Wood (Buick) failed to finish. The 25 miles free-for-all went to C. S. Baldwin, of Muncie, Ind. (Inter-State), in 27:01. Wood (Buick) was second and Roy Sawyer (E-M-F) third.

**Post Prominent at Middletown's Matinee.**

James Brady Post, driving a Stearns, won the feature event of a matinee meet held on the half mile track in Middletown, N. Y., Saturday last, 29th ult. The distance, ten miles, was covered in 14:31¾. Blaine Worcester, Buick, was a good second. Worcester won the five miles for stock cars of 600 cubic inches in 7:03¾, and also accounted for a five miles pick-up-passengers race in 9:36¾. John Eagers in an Overland drove an exhibition five miles in 7:22¾.

## OLDFIELD FINDS COLD COMFORT

**Obtains Advertising and an Injunction and Quickly Loses It—Case Thrown Out of Georgia Court.**

Oldfield, the outlaw, yesterday made another cheap bid for notoriety and newspaper mention; and, so far as known, without the aid of his new friend, Jack Johnson, the negro pugilist, or that of their mutual friend, the New York sporting editor, or any other of the more or less "dead game sports" with whom Oldfield has cast his lot. Nor was the moving picture machine in evidence, probably because Oldfield's "bid" was made in court. He made it professedly because his entry for the Atlanta (Ga.) Speedway races which begin today had been rejected and because the Atlanta Automobile Association would not give him a chance to gather the "easy money" he had contracted to collect by exhibiting himself.

Oldfield first applied for and obtained one of those temporary injunctions which appear so easy to obtain; it restrained the Atlanta organization from interfering with his appearance at its racemeet. It proved exceedingly temporary, however, for when the Atlantans and the A. A. A. officials got busy later in the day Oldfield learned the lesson so many other "outlaws" and suspended competitors already had learned—that the rules of a sports governing body are supreme and that courts refuse to take jurisdiction of such matters.

The hearing was before Judge George L. Bell in the Fulton County Superior Court. Oldfield's attorneys declared that he had been disqualified by the American Automobile Association without a hearing and that the disqualification of his 200 horsepower Benz racer amounted to confiscation of property, because as a racer it was worth \$14,000, while if not allowed to race it was worth only \$2,500. They also tried to make the most of the color line existing in the South by arguing that Oldfield's farcial moving picture race with Jack Johnson, which caused the disqualification, was justifiable, because it would tend to discourage Johnson from future competition with white sportsmen.

The opposition counsel replied that Oldfield's disbarment was automatic under the rules he himself had signed, both against himself and his car, and they produced affidavits stating that Oldfield told officials of the American Automobile Association that he would disregard the rules on account of the money he expected to make with Johnson.

Judge Bell, after three hours and fifteen minutes had been spent in argument, ruled that he had no jurisdiction.

Oldfield's attorneys, however, fixed up a

consolation event for him in the shape of a suit for \$20,000 damages against the American Automobile Association, and one for \$5,000 against the Atlanta Automobile Association, which suits may serve to further advertise Oldfield and his moving pictures, and which for that reason may be worth the lawyers' fees.

## New Jersey Guessers Get Cups and Pens.

Fifty-two cars started in the first annual sociability run held by the Automobile Club of Hudson County, on Saturday and Sunday, October 29 and 30. The course was from Jersey City, N. J., to Easton, Pa., and return, but the pleasure of the run was marred by an accident causing the death of Miss Ella Fields, of Bayonne, N. J., who was a passenger in one of the cars. The affair was more or less of the guessability type of run, with an unusual number of prizes at stake. The Blakeslee Cup and Waterman fountain pen were offered for the first leg of the trip which ended at Easton. The cup was won by F. I. Stephens, of Weehawken, and the pen by E. Gothberg. William E. Smith and W. H. Vreeland won respectively the Collard Cup and Waterman pen for the Easton to Newton, N. J., guess. The Romaine Cup for the final leg into Jersey City was taken by W. A. Alexander, while Dr. L. A. Opdyke won the second prize, a fountain pen. The grand prize, the Perlmutter Trophy, for the motorist guessing nearest to the sealed time for the total distance, was won by David Miller. T. H. Edwards and William E. Scudder won the second and third prizes, each of which was a Waterman fountain pen, of which there was an unfailing supply.

## Draw Lots to Determine Prize Winner.

Eleven of twenty-four cars which competed in the reliability run of the Calumet Club of Roseland, Ill., made perfect scores according to the finding of the judges, and President Ton is in a quandary as to what to do with the prize, the Calumet Index Cup. The trip was held on Thursday, October 27th, over the Elgin-Aurora-Joliet route and was so great a success that it probably will be repeated this month as an interclub run with the South Chicago Automobile Club. Twenty of the twenty-four starters finished, the perfect scores being awarded to: R. J. Ton, Rambler; H. F. Getze, Rambler; L. E. Rollo, Rambler; A. Tenninga, Halladay; W. McLachlan, Mitchell; N. Larsan, Mitchell; J. Hess, Hupmobile; Ernest Bihl, Mercedes; Charles Novak, Lambert; M. E. Nelson, Buick; Dr. A. Billig, Buick. These eleven will be asked to draw lots to determine the "real" winner.

Nine gasoline service wagons just have been purchased by the Servian military authorities. The contract was placed with a Swiss manufacturer.

## TAME SPORT AT WHITE PLAINS

**Few Entries and a Small Crowd—Costello in a Maxwell Wins Feature Event—Imported Cars go Wrong.**

The bright young man who thought he might accumulate at least a small pot of gold by holding a racemeet on the fair ground half-mile track at White Plains, N. Y., on Saturday last, 28th ult., now is a much wiser individual. There were few entries and the "crowd" that attended was almost large enough to cause discomfort in a telephone booth.

Six events were decided, of which T. Costello, Maxwell, and H. Mendall, Jr., Mercedes, each captured two. One of Costello's victories was scored in the feature event, the 30 miles free for all, in which S. E. Wishart, who previously had won the mile time trials, set out to make a run-away. He was in a fair way to succeed when his engine struck work and forced him to stop. He made repairs and restarted, but again and still again was forced to halt by a recurrence of his trouble. H. Mendall, Jr., who also started in a Mercedes, ran into difficulty and likewise ceased to be a factor in the race. Meanwhile, Costello and Dorley, in Maxwells, were driving consistently and although the former once stopped to change a tire, he was so far ahead that his lead was never seriously in danger. The summary:

One mile time trials—Won by S. E. Wishart, Mercedes. Time, 1:14½. T. Costello, Maxwell, second. Time, 1:21.

Five miles, amateur drivers, stock cars—Won by H. Wandall, Jr., Mercedes; H. Van Wyck, Marion, second. Time, 7:09½.

Five miles, cars under 231 cubic inches displacement—Won by T. Costello, Maxwell; M. Dorley, Maxwell, second. Time, 6:44½.

Ten miles match race—H. Wendall, Jr., Mercedes, vs. J. Teabeau, Marion. Won by Mendall. Time, 14:11.

Thirty miles free-for-all—Won by T. Costello, Maxwell; M. Dorley, Maxwell, second. Time, 43:00½.

## Livingston Meets Death in Practice Spin.

Al Livingston, a member of the National racing team, was killed on Tuesday last, 1st inst., while practicing on the Atlanta (Ga.) speedway. A rear tire went down and threw him out of the car. His skull was fractured and he died a few hours later in the hospital. Livingston was a Californian and a daring driver. He acquired his greatest fame during the Elgin (Ill.) speed carnival in August last, when he won the Illinois trophy and finished second in the big race for the Elgin trophy. Later he performed creditably in the Vanderbilt and Fairmount Park races.

**NINE BODIES FOR ONE CHASSIS**

**Bergdoll Offers Varied Equipment for Standard Mechanism—Original Details in Power Plant and Axles.**

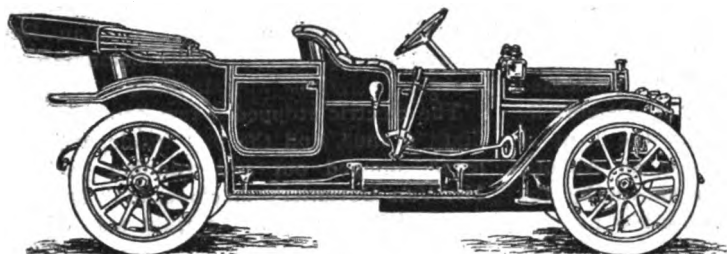
Affording a new and rather striking illustration of the advantages of interchangeable body design the Bergdoll Motor Car

with many good features of design and graceful body structures. In its various phases it is offered as a standard touring car, roadster, closed-front touring car, small tonneau, coupe, town car or cab, "colonial" coupe with rear rumble seat, limousine and landaulet.

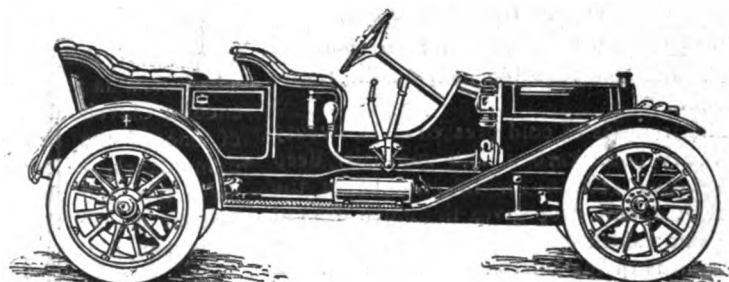
The four cylinder engine of the Bergdoll is of the bloc type 4 inch bore by 4½ inch

sons white bronze bearings and metal liners to allow for the take-up of wear. The aluminum crank case is cast in two pieces, the upper half supporting the cylinders, crank shaft bearings, oil pumps, magneto, water pump and uni-sparker. The lower half forms an oil reservoir.

The oiling system is automatic, a constant level being maintained in the crank case



THE BERGDOLL CLOSED-FRONT "30" TOURING CAR

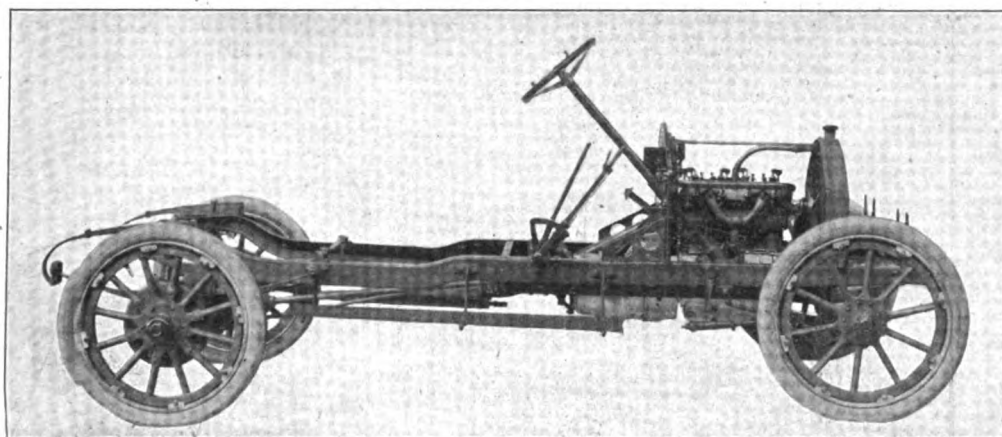


SMALL TONNEAU ARRANGEMENT OF THE BERGDOLL

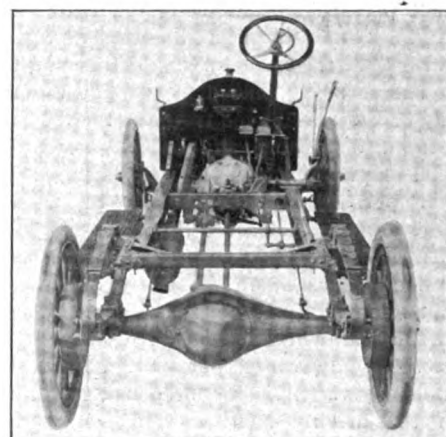
Co. of Philadelphia is producing nine distinct styles of car with practically a single foundation chassis. Making slight allow-

stroke, and is characterized by large intake valves placed on the heads of the cylinders and exhaust valves on the left side,

for splash lubrication. An overflow opens into the reservoir below. A gear pump keeps up the supply of new oil; a sight feed



SIDE AND REAR VIEWS OF THE NEW BERGDOLL CHASSIS SHOWING ITS ORIGINAL CONSTRUCTION

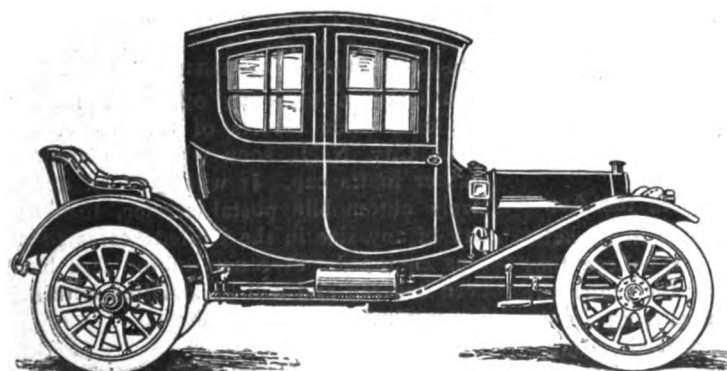


ance for such differences as service requirements may dictate in the respective cases, it may be said that two chassis types are

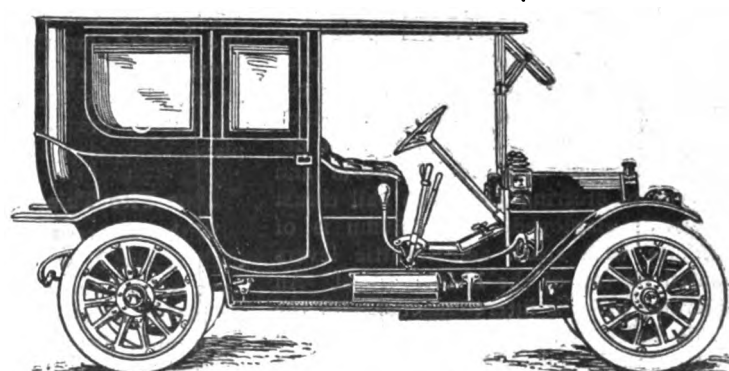
which position the manufacturers claim gives 75 per cent. more power. The entire explosive chamber is water jacketed, as also

through which the flow of oil may be observed is arranged on the dash.

Two ignition systems are used, both of



THE NOVEL "COLONIAL COUPE" DESIGN



THE CONVENTIONALIZED LIMOUSINE PATTERN

employed. At a matter of fact, however, the distinction between the touring and roadster chassis is not conspicuous. The Bergdoll "30," which is one of the newer products on the market, is a rather striking member of the medium priced class,

are the valve seats. The best grade of alloy steel carefully heat treated is used in the crank shaft, each end of which is supported by annular ball bearings of much larger size than is necessary. The connecting rods are drop forged steel, with Par-

high tension variety; the regular equipment is the Atwater-Kent Uni-Sparker with coil and batteries, and the second, a Bosch magneto with separate spark plugs. Wires from coil to plugs are carried in tubes along the top of the motor and wires from

magneto are enclosed in vertical brass tubes, adding greatly to the appearance.

The cooling of the motor is accomplished by means of centrifugal pumps, forcing the water through the jackets and thence into the Livingston cellular radiator.

The clutch is of the multiple disc type, and consists of 24 discs, one-half of which are held in place by connection with the flywheel and the other half are keyed to the main shaft of the transmission. These discs are placed alternately, first one on the engine and then the next on the transmission.

The frame is of cold pressed steel, twenty to thirty point carbon, and unusually deep and heavy section for the weight of the car. A double drop gives the much desired low and rakish appearance. The transmission is of the selective type giving three speeds ahead and one reverse, and all gears and shafts are of nickel steel, heat treated according to the requirements. All working parts in the aluminum gear box may be inspected by removing the cover. The rear axle is of full floating type with a one-piece pressed steel housing the entire axle length. The pinion shaft with pinion gear and the bevel gear are assembled and adjusted before being placed in the housing and may be easily removed from the forward side without disturbing any other part of the axle. A large cover on the rear of the gear permits convenient inspection. Ten large annular and three thrust bearings are used in the rear axle. The brakes controlled by the hand lever are of internal expanding metal to metal type, and operate on the rear wheel drums, 14 by 2 inches in size. A large and powerful contracting brake, operated by a foot pedal, is located on the driving shaft immediately behind the transmission. It is of steel, lined with Thermoid, and very durable. The front axle is an I-beam section, drop forged, and mounted on four large annular ball bearings. Schwartz artillery type wheels are used, 34 inches in diameter, the hub flanges are large and the spokes very strong. On the rear wheels the spokes are bolted to the brake drums. The wheel base of all models is 115 inches. With the use of 39 inch semi-elliptical front and 45-inch three-quarter elliptical rear springs, the desired comfort is obtained. A worm and gear type of steering gear with ball thrust bearings is employed. The column is of large size with spark and throttle levers mounted on top of the 17-inch wheel. An accelerator pedal is interconnected with the throttle lever and conveniently placed on the toe-board. Two levers at the right side, one controlling the emergency brakes and the other a gear shifter, with two pedals, the clutch and foot brake, constitute the rest of the controlling factors.

A great feature of the Bergdoll cars this year is that Continental "Q. D." demountable rims, Livingston cellular radiator, Schwartz artillery wheels and Atwater-Kent

Uni-Sparker are a part of the regular equipment, whereas they are not generally supplied on medium priced cars except for an extra charge.

#### Carries Captive Man-Bird in His Car.

Karl Bishop, of the Crest Motor Co., which has the agency for the Abbott-Detroit car in Cleveland, O., gave that city cause for considerable neck-stretching and speculation one day last week. Taking advantage of the keen interest in aviation which now is so prevalent and of the presence in Cleveland of two aviators possessed of one of the Santos-Dumont Demoiselle monoplanes, Bishop obtained the loan of the latter and rigged it upon an Abbott-Detroit car in the manner shown by the accompanying illustration. With one of the

the outside, circling around slowly at Broadway and Fifty-fifth street. Their actions aroused the suspicions of the officers, and the latter got into an automobile and followed them at a distance to Lexington avenue and Fifty-eighth street. Several automobiles were drawn up at this point, and the men inside the electric, it is alleged, got out and passed up and down the row of cars, and then, getting into their own car again, went to 60 West Fifty-third street, the home of Robert C. Van Deventer, where an automobile belonging to Mr. Van Deventer was standing.

The electric stopped a few doors east of Sixth avenue, and the pair inside, it is alleged, jumped out and, running back to Mr. Van Deventer's machine, took the two automobile shoes on the right side of the



THE MOTOR CAR OR THE MONOPLANE—WHICH?

aviators, Clinton Miller, seated in the aeroplane, and with himself at the steering wheel of the car, Bishop paraded the streets and created something of a sensation. The average observer appeared to be in doubt as to whether the aeroplane was pushing the car or the car was pushing the aeroplane.

#### Four Tire Thieves Caught in the Act.

With the arrest of four men in an automobile, the New York police believe they have solved the mystery of the many tire robberies which have been stirring up the automobile district for the past six months. Several thousands of dollars worth of shoes have been stolen, according to complaints received by the police, but until Thursday last the policemen assigned to the cases were unable to catch the culprits. Then four Central Office men who were passing along Eighth avenue, near Columbus Circle, noticed a small electric automobile, in which two men rode inside and two on

car. They ran back to their rig with the shoes, the detectives declare, but before they could get away were arrested.

#### No More Horses for Atlantic City Mails.

In addition to being one of the most famous seaside resorts of the world, Atlantic City, N. J., soon will have another feather in its cap. It will have an exclusively automobile postal service, the first city of any size in the United States to be thus equipped. Five new motor cars have been ordered and will be installed within a few weeks.

#### Penalty for Tinkering With Taximeters.

Some of the one hundred taxicab drivers in the city of Geneva, Switzerland, recently have been caught tampering with the taximeter mechanism on their cars. To suppress the practice, the authorities have adopted the radical measure of cancelling the driving license of every chauffeur convicted of the offense.



**POPE PRESENTS ITS FIRST "SIX"**

**Has Some Features in Common with Improved Four Cylinder Model—More Power and Four Speed Gear.**

While it has been known for sometime that the Pope Manufacturing Co., Hartford, Conn., has had a new six cylinder model "in the works," the precise details of its construction, like those of the new four cylinder Pope-Hartford car, were not disclosed until this week. The announcement reveals that both machines are to be of similar design in a general way, perpetuating many of the characteristics that have proved so successful during the five years that the standardized four cylinder machine has been on the market. Both will be of 50 horsepower and many of the parts will be the same for both styles of chassis, among them the clutch, change gear and rear axle. The frame construction also will be similar, although the six cylinder car will have ten inches longer wheel base than the four.

As for the new four cylinder car, it is put up in exceedingly attractive form, two of the three prominent body styles following the trend of the moment in respect to closed front construction. One of these is termed a torpedo, and while lacking in the outlandish aspect of some representatives of that class, yet possesses the rotund back, relatively high sides and overhanging dash that are characteristic of it. The largest body equipment is that of the touring car, which is of the closed-front variety, with side rails level with the top of the bonnet, high backed seats and ample tonneau space. The third body design here illustrated is that of the small tonneau, which possesses seat lines similar to those of the touring body, but is more compact and which has, in place of the front doors of the touring car, a deep skuttle dash and high sides.

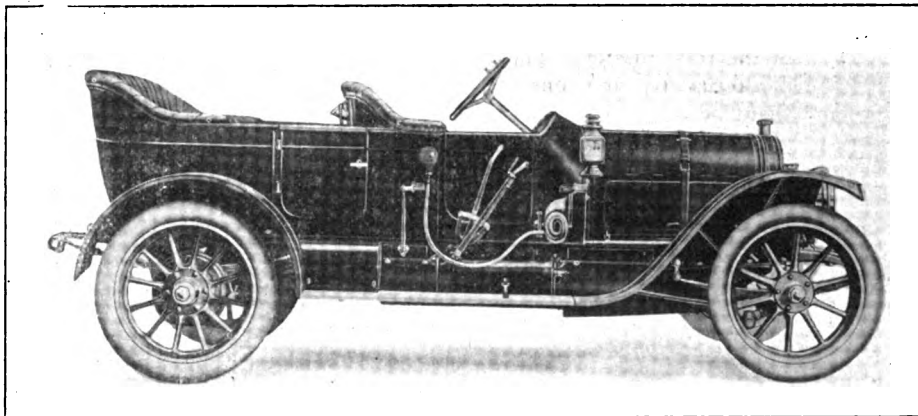
The cylinders are cast in pairs with water jackets of ample capacity integral. Conical seat valves, which are interchangeable, are located in the cylinder heads and operated mechanically by a set of overhead rocker arms and push rods. The construction of the push rods is changed from solid steel to small cold drawn steel tubes with the upper ends rounded and designed to work in similarly shaped cups on the end of the rocker arm, forming ball and socket joints. Flanged collars, forming seats for the spring that keeps the rocker arms tight up against the valve stems, are placed near the lower end of the rods. All these rods are actuated by a single cam shaft placed on the left-hand side of the motor and enclosed in the crank case. The valve rods are adjustable.

A mechanical oiler supplies oil through a positive and direct feed to each cylinder

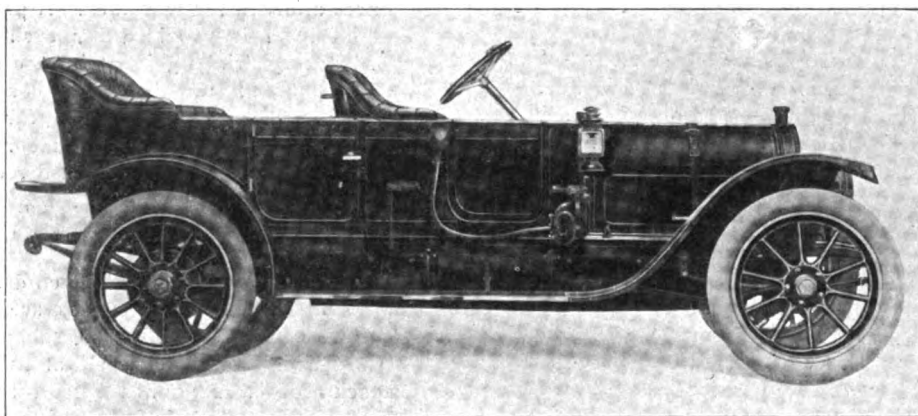
and the timing gears and shaft. A large suction pump draws the oil to the oiler from a reservoir beneath the crank case. The pump is capable of lifting one gallon of oil every 26 minutes with the engine turning 1,000 revolutions per minute. Overflow oil goes to the cam shaft housing,

gear on the cam shaft is provided for use in the battery circuit.

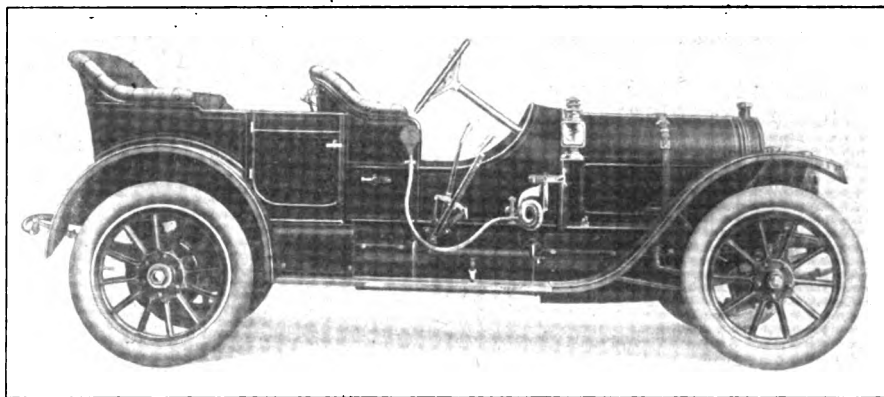
Water cooling is effected by means of a gear-driven pump, located on the left side of the motor. A four blade, belt driven fan, mounted in an aluminum adjustable bracket is placed behind the radiator and



TORPEDO VERSION OF THE NEW POPE-HARTFORD



POPE-HARTFORD MODEL "W" CLOSED-FRONT TOURING CAR



THE NEW MODEL "W" IN SMALL TONNEAU FORM

lubricating the cams, cam rolls and their bearings, thence to each main bearing of the crank shaft. A constant level is provided for in the crank case, insuring proper connecting rod lubrication.

The standard ignition is the dual system with Bosch magneto. A single unit coil is used, and each cylinder tapped for two spark plugs. A commutator driven from a

induces cooling air through the radiator and around the motor.

A cone type clutch having a heavy leather face with cork inserts is used, connected to the transmission by a coupling of new design and interlocked with both the emergency and service brakes. Thus the release of the clutch is insured before the brakes are applied. The clutch spring,

wound of heavy square stock, is enclosed in the clutch hub itself.

The new four speed transmission is a deviation from the three speed of previous years. Fourth speed, or high, is on direct drive, and any speed may be selected without regard to rotation. The shafts and gears are of chrome nickel steel, highly tempered and oil hardened. As in the past an armored frame is used, consisting of chrome nickel steel, heat treated, side pieces of channel section, with the channels reinforced with straight grained white ash. The cross members are also channel section, hot riveted to the side pieces. The use of tough ash in conjunction with the steel frame gives the strength and flexibility required. The rear axle is of the full floating type with axle tubes brazed to the differential case. The whole differential may be removed while the car stands on its own wheels.

Each of the two sets of brakes acts on the rear wheels, the service brake, foot operated, being external contracting, and the emergency brake internal expanding. The action takes place on two separate sets of drums, which have sufficient clearance between to avoid the tendency of heating. The drums are bolted to the rear hubs, and are very efficient, either set of which will lock the wheels.

The front axle is a one piece solid forged steel beam of I-section. The wheels of the 4 cylinder models are 36 by 4½ front and rear, except on the 7-passenger and closed body cars which have 36 by 5 inch rear tires. The 6 cylinder cars have 38 by 4½ inch in front and 39 by 5 inch wheels in the rear. Demountable rims are included in the standard equipment of the latter models. Semi-elliptical springs are used both front and rear, and much more is claimed for them in easy riding qualities than those on previous models.

The steering is done through an irreversible worm and sector type of gear, enclosed in a dust proof case. A 1¾ inch column supports the 19 inch wheel, upon which are mounted the throttle and spark control levers. Two pedals, operating through the footboard, control the clutch and service brake, while the emergency brake hand lever and the gear shifting lever are placed conveniently at the right side. A compression relief rod is located on the dash and a pedal for the muffler cut-out is placed on the floor board.

#### To Lift the Body from the Chassis.

The lifting off of an automobile body from the chassis is generally a hard task and particularly if it must be done by only two or three men. In one garage, however, where the working force is limited, ingenious use is made of an elevator. The car is run under the elevator and the body tied with rope to the under side of the platform. As the elevator rises, the body goes with it, being lifted easily from the chassis and then easily lowered to the floor.

## FEATURES OF A MODERN FACTORY

### Hudson Takes Possession of New Plant Which Illustrates Present Tendencies—Many Comforts for Workmen.

On Saturday last the Hudson Motor Car Co. took possession of its new plant in Detroit, bag and baggage being removed from the old place to the new one, which comprises a main building 610 x 60 feet, one wing 410 x 60, another 210 x 60 and the offices which are 180 x 52. All buildings are two stories high and are absolutely fire-proof. The windows have the Fenestra steel sash and are so plentiful that the glass area in the walls comprises 90 per cent. of the total area. Ribbed glass has been used to diffuse the light so that the strong glare of the sun will not hurt the workmen's eyes.

The new plant is another of the modern establishments that is notable for the conveniences afforded the workmen. A private locker of steel is provided for each employe. Sanitary drinking fountains are scattered throughout the immense concrete buildings; there are rest rooms for the women, smoking rooms for the men, dining rooms for all, shower baths, recreation grounds, and every effort has been made to obtain perfect illumination, ventilation, and heating.

Every workman has a metal bench drawer with his own key. The benches are specially designed with maple tops, shellacked and varnished. Five electric elevators with a capacity of 8,000 pounds apiece, and a system of compressed air for riveting, drilling and reaming are other features conducive to low cost of production. The old system of long shaftings has been displaced by electric drives, which means a saving of power, and the short shaftings are on the Hyatt roller bearings further to cut down power consumption.

The system of bells and telephones is complete and is supplemented by a code of color signals. Superintendents of the departments have been given various colors. For instance, the superintendent of equipment—whose color is blue—might be out of his office when his phone rang. It might take many minutes to find him in the maze of machinery. But in whatever department the superintendent may be, a blue light flashing on an indicator will serve to notify him that he is wanted.

The experimental room was equipped almost entirely by Howard E. Coffin, the head of the Hudson Company engineering staff and designer of all its models. It contains about every known experimental device used in automobile engineering.

All electric wires are run in steel conduit fittings—a very recent improvement in factory wiring.

Special attention was given the hardware

used in the building. For the offices' statuary, bronze with satin finish has been used throughout. Every department has its master key, with a grand master key for each of the executive officers. That is, the head of one department can unlock all the doors in his own department, but the grand master key unlocks everything in every department.

A special overhead crane devised by Mr. Coffin, picks up cars and carries them to the paint shop in three minutes.

By the old method an old set of wheels had to be put on the car to get it to the paint shop. That took thirty minutes and the service of four men. Mr. Coffin's new device alone will save \$6,000 every six months.

The fire protection system consists of a 30,000-gallon tank erected on a tower 135 high. It connects with large underground fire pipes which are connected with fire hydrants throughout the yard and also with "risers" in the buildings which feed small sprinkler heads near the ceiling. In case of fire the sprinkler head opens, throwing a large spray of water and at the same time ringing a big electric gong, warning the watchman of the danger.

#### Two Tales of Traveling Men.

Charles F. Splitdorf, the New Yorker who makes magnetos, is a good story-teller, among other things. Once started, he can keep almost any party interested, which is not so strange, seeing that once upon a time he was a "footlight favorite" of the amateur stage. A few evenings ago when the changing order of men and things in the automobile industry was under discussion, he related a storiette that aptly illustrated the point.

"I was visiting an automobile factory when a young man presented himself to the manager of the establishment. He was seeking a position. When he stated that he was a traveling man, the manager half-exploded.

"Traveling man?" he replied. 'No; we don't need any. We have ten traveling men. What we want is one salesman.'"

And, of course, this reminded Splitdorf of another "good one," also involving a traveling man—a "star" salesman, in fact, whose expense account was in keeping with the size of his orders, and occasionally a little out of keeping with them. There came a time when the head of the house deemed it advisable to remark the fact. He did so, gently. Pointing to the item "Traveling" in the salesman's expense book and which represented a good round sum, not all of it expended for railway fare, he remarked affably:

"You can cover a good part of the United States for that sum."

"I know it, sir," glibly responded the salesman, whose readiness of tongue was his chief stock in trade; "but you know it is necessary for me to 'go some' even when I'm standing still."

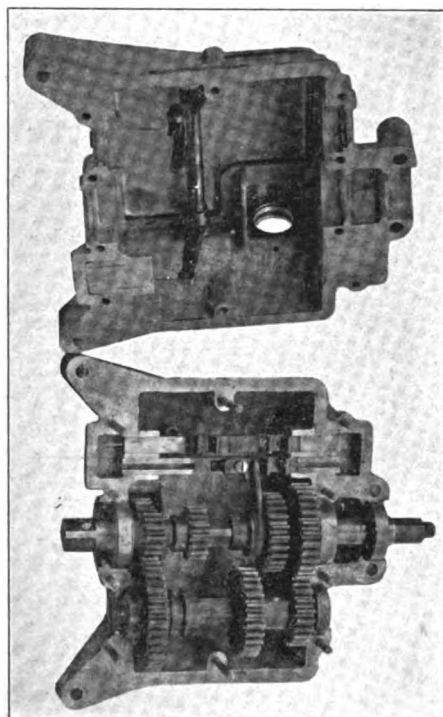
**CORBIN OFFERS A NEW "FORTY"**

**New Comer a Notable Addition to the Line—New Bodies and Improvements for the Older Models.**

While the automobile manufacturers of the West and Middle West have succeeded in drawing considerable attention to their operations, the little group of car builders whose operations center about the New England states, Connecticut in particular, have been exceedingly busy in a quiet way; and announcements of their plans for the immediate future indicate that they are making arrangements for an even more successful year during 1911 than that which is

The motor in this new model "40" is one of 40 horsepower, having four cylinders,  $4\frac{3}{4}$  by  $5\frac{1}{2}$  inches, cast in pairs. The valves are located in the sides, those of the inlet located in the right and the exhaust on the left. By placing the valves on opposite sides the advantage of having large valve dimensions is gained, and the T head motor

utor and the other an imported high tension magneto. Cooling is effected with the use of a positive driven gear pump, Mayo radiator and a six-blade belt driven fan. The clutch is of the conical type, with springs under the leather facing, and is easily operated by compound engagement, and the brake on the clutch insures low in-



CORBIN "40" CHANGE GEAR

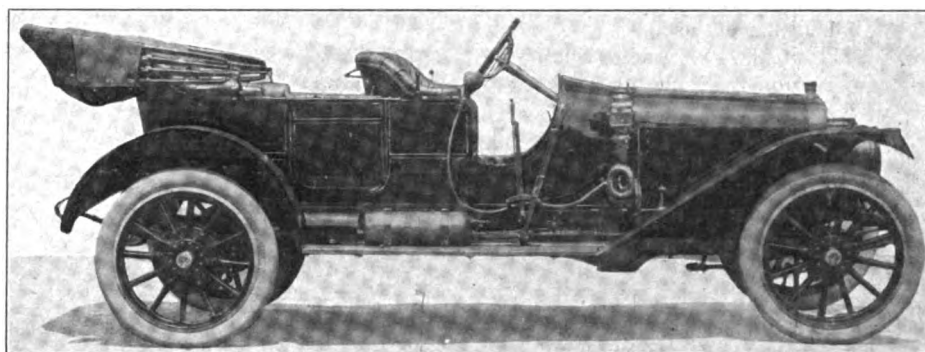
now drawing toward its close. One of the older companies in this class is the Corbin Motor Vehicle Corporation, of New Britain, whose affiliation with the great American Hardware Co. ensures it an enviable degree of substantiality.

During the present year the Corbin product has centered about a single chassis model of 30-35 horsepower. In the new line, which just has been announced, this is to be continued substantially in its former shape and built as a small tonneau or touring car. In addition to this, however, the line will be augmented by a second model of about the same capacity, known as model "30," which will be of shorter wheel base and produced in small tonneau and touring forms. A third member of the line, model "40," will be an entirely new and rather striking car selling at \$3,000, instead of \$2,750 or \$2,000, the prices of the other two models respectively.

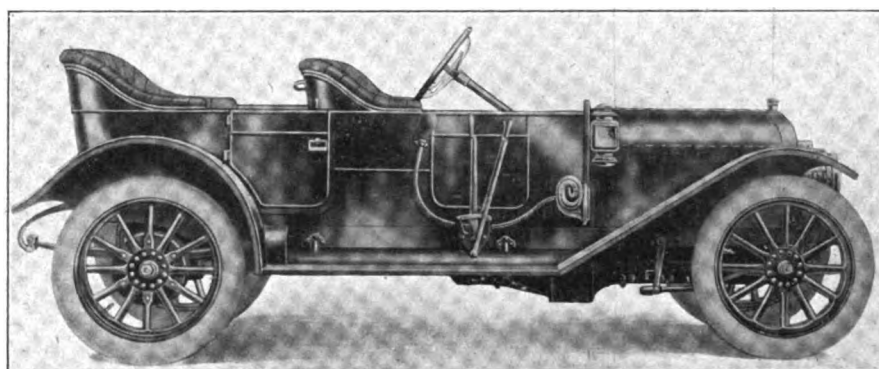
is more symmetrical. The crank shaft is supported by five bearings of large size. The piston has four rings at the top, and two oil grooves, and is attached to the crank shaft by I beam connecting rod.

Lubrication is accomplished by means of a self contained circulating system supplied from a reservoir in the motor case. An indicator on the dash shows the feed, and an oil level glass is attached to the side of the motor. Two complete systems are included in the ignition equipment, one a storage battery with unit coil and distrib-

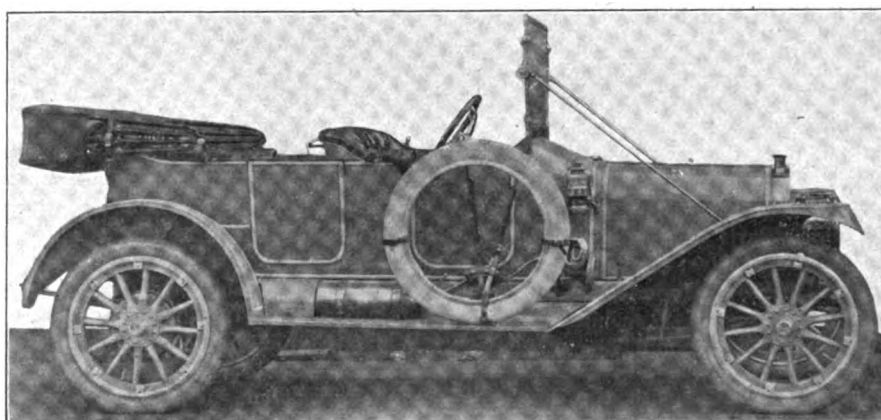
ertia and no clashing of the gears. Pressed chrome nickel steel, heat treated, is the material used in the construction of the frame. The side members are narrowed toward the front, and raised over the rear axle. The motor is supported by cross members and the pan. Three speeds forward and one reverse are secured in the selective sliding gear transmission. The drive is bevel gear and the rear axle is of the semi-floating type, annular ball bearings are used throughout and the gears are easily accessible. Two independent, equal-



CORBIN MODEL "18" EQUIPPED AS A ROADSTER



CORBIN MODEL "30" WITH CLOSED FRONT BODY



THE NEW CORBIN MODEL "40" TORPEDO TOURING CAR

**HERE'S A 75-YEAR OLD DRIVER**

**He Hails from New York State and Uses  
His Car in His Business—Tools  
that Are Historic.**

ized sets of brakes act on the rear wheel drums. The front axle is an I beam section one piece drop forged with Fiat type knuckles. Semi-elliptic springs are used in front and three-quarter elliptic in the rear. A worm and full worm type of steering gear, adjustable for wear in all directions, is set at a rakish angle through the dash board. On the 18-inch wheel are mounted the spark and throttle control levers, while the clutch and service brake are operated by separate foot pedals through the toe-board. Gear-shifting is accomplished by the lever at the right side, mounted together with the lever controlling the emergency brakes. The wheels are 36 by 4 inches on all chassis of this model except that of the limousine, on which they are 37 by 4½ inch. The wheelbase is 120 inches.

The two other chassis, Model "18," of 30 horsepower, and Model "30," differ to some extent from the new Model "40" in that the cylinders are cast separately, and the wheelbase of the smaller car is 115 inches. Each of the latter models has 34 by 4 inch tires. Universal "Q. D." rims are used on all 1911 chassis.

In respect to the new bodies the equipment includes the torpedo and closed front in addition to the standard touring, small tonneau, roadster and limousine on the "40" chassis, while the "30" is offered with touring or small tonneau bodies. Model "18" is a neat looking four-passenger car with a scuttle dash, concealed latches and other attractive features.

**France Counts its Private Motor Cars.**

Statistics for the year 1909 compiled by the French government and which tardily just have been made public, show that the total number of private automobiles in use in the Republic at the end of that year was 53,669. This total includes neither taxicabs, omnibuses nor commercial vehicles. The increase over the year 1908 was 8,900 cars. The average power of the 53,669 cars is 13 horsepower. The Department of the Seine, in which Paris is located, of course, accounts for the greatest proportion of the total or 10,045 cars; Seine-et-Oise has the next largest number, 2,429, while Corsica only boasts of 16 automobiles.

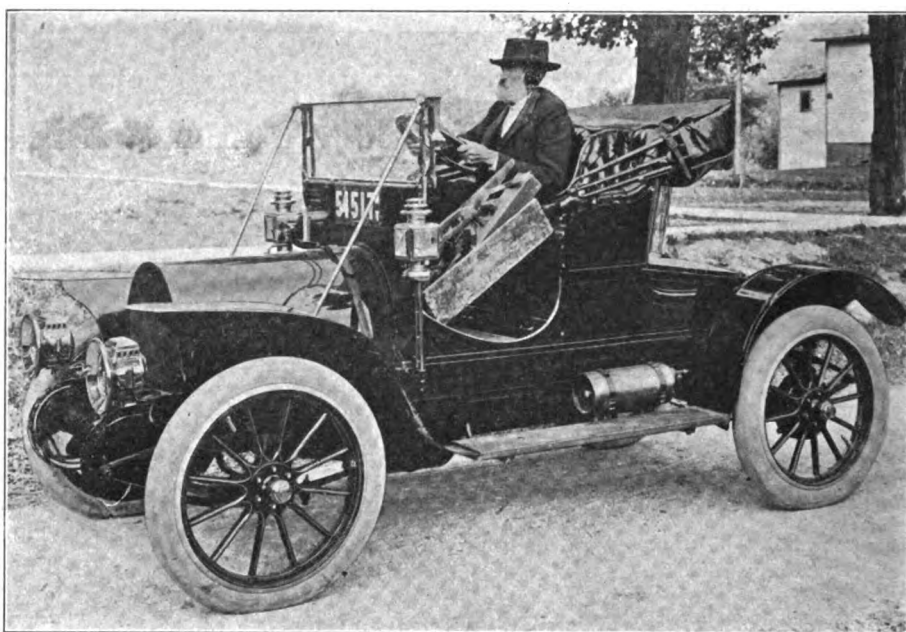
**How New York is Checking the Smoke.**

The first report concerning the working of the anti-smoke ordinance of New York City which covers the period from September 29 to October 17, inclusive, gives the total number of arrests as 119, the number of fines imposed as 100, and the amount of fines as \$340. Ten offending chauffeurs were discharged; one was held for Special Sessions and seven more let go under suspended sentences. The ordinance originally was passed to go into effect on July 1, but an additional three months was granted during which to make necessary alterations or arrangements calculated to obviate the smoking nuisance.

Mr. Vandenberg plowed up in a field. It has been used so much that its face is battered until it resembles the head of a mushroom.

**Indianapolis's License Law is Upset.**

The test case, recently instituted in Indianapolis, Ind., to establish the validity of the city ordinance giving magistrates and the board of public safety the right to suspend or revoke the license of offending chauffeurs has had a far reaching result. The entire license ordinance has been declared invalid by Judge Remster and the issuing of licenses to automobile drivers and motorcycle riders has been ordered discontinued. The money involved is quite an important item, as 4,224 drivers' licenses



C. C. VANDENBERG, BELIEVED TO BE THE OLDEST MOTORIST IN THE UNITED STATES

cupation, his car enabling him to answer calls that otherwise would be impossible. The tools he loads beside him, and he makes much better time and is able to go much further than he could were he obliged to rely upon his own physical powers in going to and returning from work.

While the old gentleman's means of locomotion is up to the minute, his tool kit is full of ancient history. Some of the tools were used during the war of 1812 by an uncle of Mr. Vandenberg, who fought in that war and was stationed at an arsenal at Albany, N. Y. He used the tools in construction work about the arsenal. The present owner has in the kit some the age of which he is unable to learn, but he believes some of them were made long before the beginning of the last century.

The tools which saw service during the war of 1812 are a long jointer plane, a short jointer, a hammer, two chisels, a handsaw, a hand-made square and several other small instruments.

Another of the tools is a hammer which

have been issued since the ordinance became effective last year. It has been decided, however, that the license fees will not be returned, because they had not been paid under protest.

The grounds on which the ordinance was declared invalid are unusual, and not apparently because of supposed conflict with the state law. Judge Remster held that the ordinance conferred "arbitrary and discretionary powers" upon the board of public safety in granting of licenses, in so far as no definite standard of fitness is set out in it, and that, in the opinion of the court, if such an ordinance was to be considered valid it must fix a definite standard for the successful applicant. Under the ordinance passed last year it would be possible, said Judge Remster, for the board of public safety to grant or refuse a license at the pleasure of the members of the board, regardless of the applicant's fitness. Such a possibility would be contrary to the doctrine of equal rights for all and therefore unconstitutional.



**BUILT FOR BANKING SERVICE**

**Armored Car Designed to Safeguard Funds and Other Treasure—Protection and Conveniences that It Affords.**

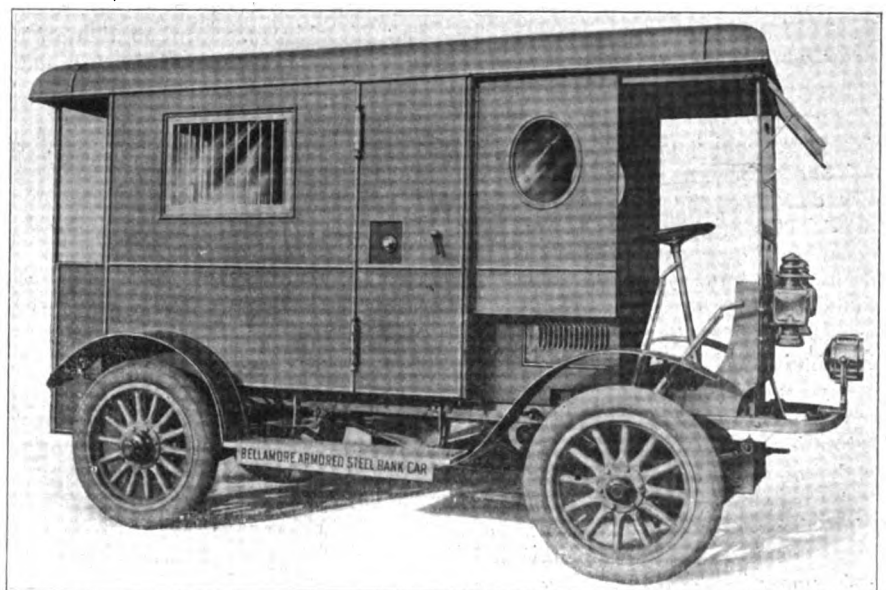
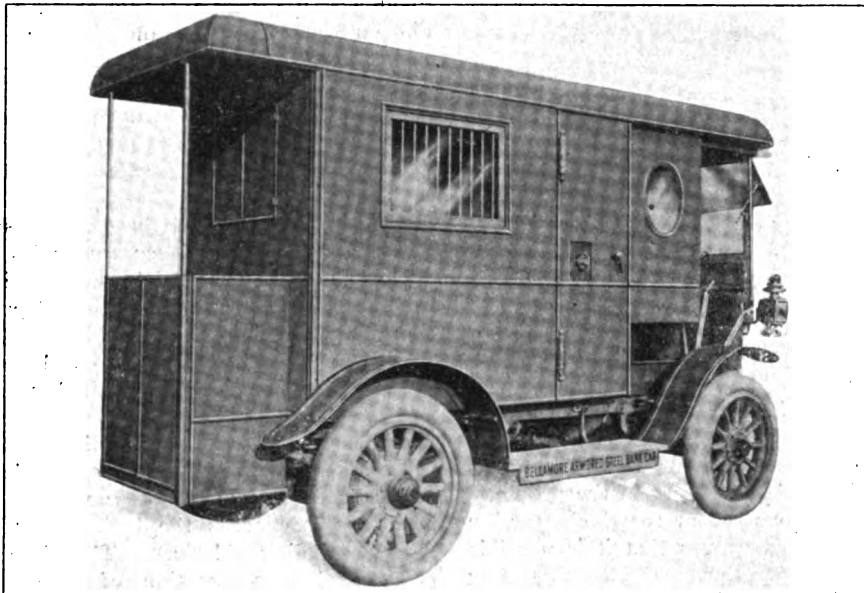
It is the popular impression that a great deal of money has been put into automobiles in this country up to this time, but

dinary banking operations with customers who might find it inconvenient to go to headquarters either to deposit or draw money. With the idea of encouraging enterprises of this sort and others of a kindred nature, the Bellamore Armored Car & Equipment Co., of New York City has just put on the market a decidedly original and ingenious type of protected vehicle.

The accompanying illustrations afford a

observed, are controlled from within by means of levers. The driver's compartment in front is entirely separate from the remainder of the machine and is protected by steel sides.

The interior of the machine is equipped with a swivel chair for the cashier, a desk under the grill, facing to the rear, and a large steel safe, which occupies the forward part of the compartment, leaving only suffi-



**BELLAMORE ARMORED CAR FOR TRANSPORTING FUNDS, MAKING COLLECTIONS AND PAYMENTS OR TRAVELING BANK PURPOSES**

the idea of a car especially designed to put money into still is considerable of a novelty in many quarters. Nevertheless, several such machines have been constructed for the specific uses of banks in transporting funds. In England, for example, the People's Bank of Brighton has adopted the novel plan of putting on the road a traveling branch establishment, mounted in a motor car, and equipped to carry on all or-

good idea of the external appearance of one of the several types which the Bellamore company is producing. It is of the so-called vestibule type, having a small, hooded platform at the rear, upon which the customer may stand while transacting business, but from which it is impossible to gain access to the interior. The gates to the vestibule and the shutters which close the cashier's little grilled window, it may be

cient room for entrance and egress on the right of the machine.

Under the desk are shelves suitable for the storage of books and papers, while provision is made for an extra folding seat, if required. The interior is electrically lighted by means of a storage battery system, while suitable means of communication are provided between the cashier or messenger and the driver. The walls and floor of the

interior are finished in hard wood and the outer door is provided with a duplicate key latch lock, with alarm bell attachment.

The windows and the dividing partition between the two sections are protected by means of electrified steel grill work while the body structure throughout is specially safe-guarded by a patent system of electric alarms which give instant warning of attack, either by drilling, wedging, cutting or annealing the linings or the steel grill work protecting the windows and partitions. The framework is made of armored steel, reinforced with a finish plate of hard wood on the inside. The sides, partitions and floor are constructed of alternate layers of tempered steel, hardened insulating material and electrified plates. In addition, the floor is further protected and stiffened by a heavy tempered steel plate. The alarm gongs, it should be added, are placed in a special compartment between the roof and ceiling over the driver's seat, and are protected in the same manner as the remainder of the vehicle, the construction being such as to produce a sounding board effect.

The safe is produced by a well-known safe maker and embodies the latest improvements both in construction and locking facilities. It is sealed by four heavy round bolts with a special anti-dynamite trigger device, as well as a duplicate master key arrangement, for use when large sums of money are to be transported from point to point.

The same general type of construction also is provided in a bank limousine, which, instead of the cashier's desk in the rear has a cross seat, in addition to two folding seats, its carrying capacity thus being five passengers, for which there is ample room back of the safe.

The mechanical equipment of the car here illustrated is that of a 20 horsepower double opposed motor in a chassis of standard construction. In addition, and for either the vestibule or limousine types of equipment, a four cylinder chassis of 40 horsepower may be obtained. The prices of the completely equipped bank cars range from \$4,750 to \$6,000, special arrangements, either of the interior or of the general design, of course, being obtainable. The machine is intended for use not only as a traveling bank, but for purposes of collection, disbursement—as in paying off men on contractors' operations—transferring funds, and in other ways where absolute protection for the cargo is necessary.

#### **Safeguarding the Repair Pit.**

In order to prevent cars from dropping into repair pits, raised stringpieces should be so placed along the edges that the wheels will be guided by them. On the end where the car enters, the pieces should meet in a V-point. This will greatly facilitate getting the car in position and will save considerable time in races where seconds often are precious.

## **AUSTRALIAN MARKET FOR TRUCKS**

### **American Consul Calls Attention to Its Unusual Promise—Conditions that Make for Extended Usage.**

Australia as a market for commercial motor vehicles is one of rich promise, according to the American vice-consul general, Henry D. Baker, who is stationed at Sydney, where he says there has been a great increase in the use of such vehicles during recent months. The municipality itself employs motor wagons for sprinkling the streets and removing garbage.

Its size, the great distances between its cities and towns and its inadequate railway facilities combine to make Australia a promising market; the huge wool teams and traction engines long employed serve further to indicate the possibilities that are presented. These slow, cumbersome traction engines will haul anything up to 30 tons, and the idea of replacing them with a relatively fast and flexible self-contained motor wagon carrying five tons or more is but just beginning to occur to the people.

"The enormous extent to which traction engines are used proves that it is possible to use power wagons, and also that they compare favorably in point of cost with horses. It must be admitted that the cost of running a traction engine, while being considerably greater than that of a motor wagon, is yet cheaper per ton mile when a continual full load is hauled, and under English conditions scarcely costs more than 1d. (2 cents) per ton mile," says an Australian in discussing the subject. "But the trouble with the traction engine is that it is very slow, rarely exceeding an average speed of 2 or 2½ miles per hour; it is strictly limited in regard to its radius of action on account of its enormous weight; and, lastly, it is comparatively rare to be able to provide a full load for it, so that when time, disability, and ultimate cost are considered and it is probable that the motor wagon will prove the cheapest of all methods to run.

"The cost of hauling heavy loads by horses in the State is enormous. A local firm states that the actual cost to them for five ton loads in the suburbs of Sydney, and for distances of something like 10 miles, works out to almost exactly 1s. (24 cents) per ton mile. If that has to be paid in suburban areas, one can well understand that on some of the more distant tracks sums like 2s. (48 cents) and 2s. 6d. (60 cents) per ton mile, if not still more, are being paid.

"We have no hesitation in saying that there is no one in New South Wales today who can point to a commercial motor vehicle that is not proving at least a thoroughly sound business proposition to its

owner. The causes of past failures are unsuitable vehicles, ignorance of owners, incompetence of drivers, and local conditions least of all, if at all.

"It is neither the too heavy nor the too light vehicle that is going to succeed in Australia under Australian conditions, but the one that strikes the happy medium which combines strength and lightness that will prove the most successful in Australia. But it must always be remembered that to carry a considerable weight of goods at comparatively high speed there must be great strength, and it is absurd for anybody to produce a light and flimsily built article and say that it will carry so many tons of goods when there is every prospect of its collapsing under a load but very little heavier. The margin over both the breaking strain and the carrying strain must be ample for all contingencies if a vehicle is to be successful, and that in itself must play a great part on the depreciation of the cars."

Although the use of commercial motors in Australia is still very limited, yet the successful beginnings of such cars seem significant of important possibilities in the future. In proportion to the population, Australia is a country of enormous distances, as it exceeds the United States in size (excluding Alaska). Therefore the economical transportation of goods presents a serious problem to traders, as the railroad facilities are very inadequate. With such a promising outlook, Vice-Consul Baker thinks it would profit American manufacturers of commercial motors to give serious attention to the market.

#### **To Make Wind Shields Rainproof.**

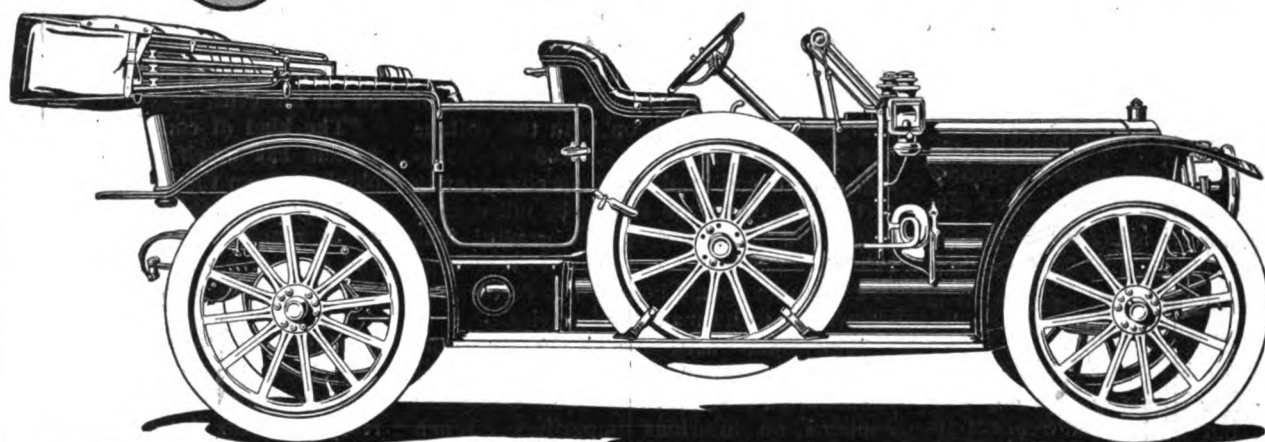
Any motorist or storekeeper who suffers a wind shield or a lamp or a show window to become befogged by rain or mist and thereby permits vision to be impaired has only himself to blame, according to the Motor Car Equipment Co., 55 Warren street, New York. That company bases its assertion on its experience with Glassco, a fluid preparation which it just has placed on the market. It is a combination of chemicals which when rubbed on a glass surface, sheds water much as a duck's back sheds it. A few drops applied with an unstarched cloth will last three days. Glassco is put up in bottles at \$1 each, one bottle being sufficient for a season's use.

#### **Cloth Screens for Subduing Headlights.**

Although many motorists make it a practice to render the lenses of their headlights opaque by rubbing whiting on them or by covering them with cheese cloth when driving in the city at night, the use of cloth screens, especially prepared for the purpose, and so contrived that they can be attached to the lamp fronts without delay, for some unaccountable reason has not become popular. Such screens can be made at slight expense.

# Rambler

## 1911 Cars Now Ready



Rambler  
Sixty-five

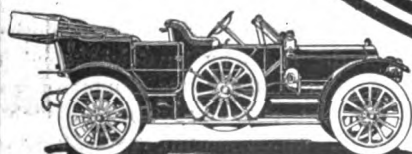
**T**HE 1911 Rambler is now ready and orders are being taken for early deliveries of all styles. The line includes landaulets, coupes, limousines, town cars, roadsters, toy tonneaus and five and seven-passenger touring cars with detachable fore doors. Details and construction alike for all: two sizes, forty-five and thirty-four horsepower. Forty-inch wheels on all seven-passenger open cars, thirty-six-inch wheels on all others. Seven-eighths elliptic springs and shock absorbers produce gratifying comfort. The offset crank shaft and straight-line drive enable you to travel through sand and up grades on high gear as slowly as ten miles an hour. That there is no need to rush the hard pulls is one of the charms of driving a Rambler.

*You may have a copy of the special  
number of the Rambler Magazine  
if you make request immediately*

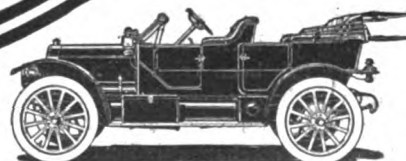
**The Thomas B. Jeffery Company**

Main Office and Factory. Kenosha, Wisconsin  
Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco

Rambler  
Sixty-four



Rambler  
Sixty-three



## THE CARE OF STORAGE BATTERIES

Benefits of Charging by Ampere Hour Meter—Attentions that Increase Efficiency and Economy of Electrics.

One of the difficulties incident to the maintenance of electric vehicles has been that the innermost needs of the storage battery have been even more of a mystery to the average owner than have the requirements of the gasoline engine. In consequence the efforts of the painstaking garageman to afford his customers thoroughly effective service frequently have been met with suspicion, on the general assumption that he might be inclined to give the battery more care than it really needed. It is known to battery experts, however, that a relatively considerable amount of attention paid to the battery regularly, not only prolongs its life, but in the end renders its operation more economical than it otherwise would be. Of what operations such necessary attentions should consist, was explained by S. C. Harris in a paper read before the recent convention of the Electric Vehicle Association of America in New York City.

It is generally understood by those who have had experience with electrics that when the battery is first received, it requires to be put through a series of charges and discharges in order to "form" the plates. The details of this process, as a rule, are accepted by the owner as needful, and their importance is unquestioned. After the battery has been put into service, however, its need of constant supervision of an intelligent and well-directed sort cannot be too strongly emphasized. It was with the elements of this care that a portion of the paper in question dealt.

"The instructions given by the manufacturer for charging are that the battery be charged at the normal rate until the maximum voltage is reached, and then to charge at the low rate (half normal) until this same voltage is again reached," said Mr. Harris.

"These instructions are, no doubt, very good if followed, but they require considerable more attention to the switchboard than is likely to be given. It is often puzzling for the attendant to know just when the maximum has been reached where he has several batteries of different ages charging at the same time. I very much doubt that the degree of accuracy in charging required for the best life of plates is obtained where this method of charging is practiced.

"The charging of batteries by the ampere hour meter has been tried by a number of garages with good results. By this method, a certain percentage more charge is given than the discharge indicated on the dial of the ampere hour meter. The

hand of the meter is pushed forward in the direction of discharge until the meter reads the amount of charge to be put into the battery (10 to 15 per cent. more charge than discharge, as conditions require). The charge is then put on and the hand travels toward zero, where there is a contact which automatically opens the charging circuit when the required ampere hours have been put into the battery.

"This method of charging requires much less attention at the switchboard and is more accurate than the voltage method of charging. As a check on both the voltage and ampere hours' meter methods of charging, a pilot cell reading of specific gravity at the end of charge should be taken each week, and when the specific gravity falls below the maximum an extended overcharge at a low rate should be given to restore the electrolyte to its maximum gravity.

"The water used for filling the cells should be distilled unless it is found by examination that the water from the faucet contains no injurious impurities. When water from iron pipes is used it should be allowed to run a few minutes before using, to prevent any iron scale that may be in the pipes from getting into the battery.

"When filling the battery care should be used to avoid putting more water in each cell than is required to cover the plates about one-half of an inch. This advice should be closely followed, as it has been found in many instances that excessive slopping has been due to overfilling, with the result that wooden trays and packing become soaked with acid and therefore good conductors, causing burning of jars.

"The cleaning and keeping clean of the tops of the cells is very important, as the dust from the street and material that is hauled in the vehicle is sometimes found in considerable quantity on the top of the battery which, becoming saturated with acid, is another cause of burning jars. The battery compartment of the vehicle should be arranged to prevent this collection of dirt as much as possible.

"The inspection of the individual cell of a battery for the purpose of determining their state of charge consists in taking voltage, specific gravity and temperature readings at regular intervals over the entire battery. The frequency with which such inspections should be made is a matter of opinion and does not affect the life of the plates materially as long as the proper methods of operation are followed. I have known of batteries that have been in service in vehicles that have not been inspected as to their state of charge for a period of four months and were found to be up to full capacity when tested. The life obtained from these plates was as good as the life obtained from plates where the voltage and gravity readings were taken weekly. A simpler and just as effective method of inspection is to observe the gas-

sing of each cell at the end of charge once a week.

"The pilot cell readings are an indication of the conditions of the whole battery, and any cell that is in a sufficiently low condition to require special attention can be readily detected by slight gassing or the absence of gas at the end of charge. When the pilot cell indicates that the battery needs an overcharge to bring the specific gravity to a maximum, then voltage, specific gravity, and temperature readings should be taken on all the cells.

"The kind of care used in operating the vehicle has much to do with the results obtained from the battery. The route traveled by the vehicle should not be such as to require a complete discharge daily and an over-discharge should be a rare occurrence. The speed should be cut down going over rough roads to prevent the breaking of rubber jars. There is a considerable reduction in the cost per mile for running vehicles where the driver is held responsible for the condition of his vehicle and severely disciplined for carelessness in its operation."

### Rambler Wisdom in Magazine Form.

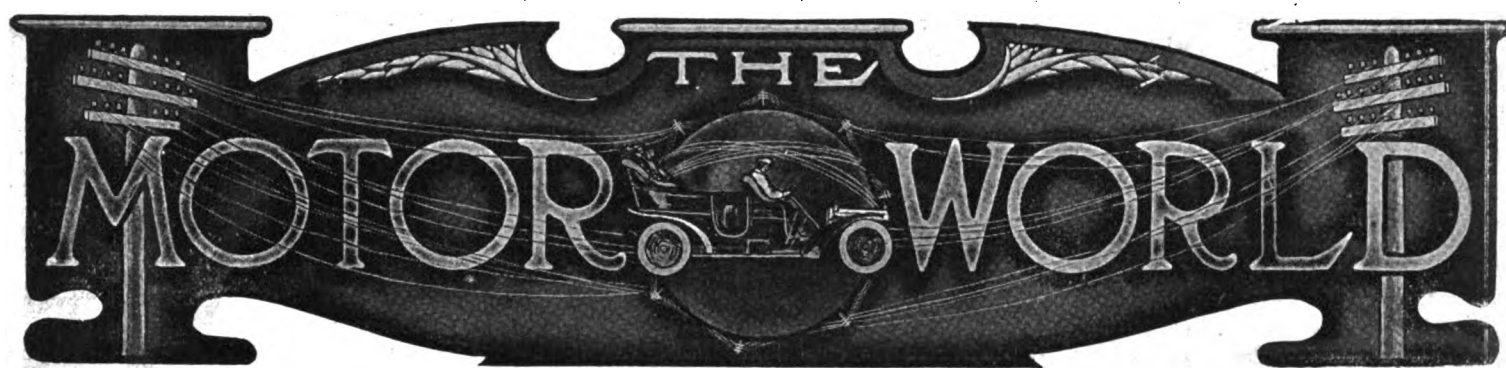
Rambler dealers, representing every section of the country, have co-operated with the Thomas B. Jeffery Co., Kenosha, Wis., in the production of a remarkable number of the Rambler Magazine, which just has been issued and which tells an interesting story of the success of the big Rambler organization, how the producing and selling ends are managed, why Rambler dealers have succeeded and including the complete announcement of the Rambler for 1911. It follows that it is of interest and instruction to the trade generally.

This number is of standard magazine size and is replete with attractive illustrations of dealers' headquarters in all the principal cities, factory departments, showing the extent and equipment of the Rambler plant and a narrative of the growth of the Rambler organization, showing how—with nearly forty years of manufacturing experience behind it and guided by a stable policy—it has become one of the great manufacturing and selling organizations in the world.

### Effect of a Bent Torsion Rod.

If the torsion rod is observed to be bent it should be removed from the chassis and restored to its proper alignment without delay. The effect of its being disaligned is to cause the universal joints of the propeller shaft to work at an unnecessary angle, thus absorbing extra power from the motor. Furthermore, there is some chance that the accident which resulted in the bending of the rod may have weakened it so that it is in more or less danger of giving way. If it is carefully inspected such an accident, which might result very seriously, can be avoided.





Volume XXV.

New York, U. S. A., Thursday, November 10, 1910.

No. 6

## CLIFTON AGAIN HEADS A. L. A. M.

**All Other Officials Also Unanimously Re-Elected—Conditions Discussed and a Conservative Policy Advised.**

Charles Clifton, of the Pierce-Arrow Motor Car Co., Buffalo, N. Y., for the seventh time has succeeded himself as president of the Association of Licensed Automobile Manufacturers. He was unanimously returned to the office at the annual election of the organization which occurred at its headquarters in New York on Thursday last, 3d inst.

All other of Mr. Clifton's colleagues also were unanimously re-elected, as follows: Vice-president, S. T. Davis, Jr., Locomobile Co. of America; secretary, L. H. Kittredge, Peerless Motor Car Co.; treasurer, George Pope, Pope Mfg. Co.; general manager, Alfred Reeves. Executive committee: Charles Clifton, Pierce-Arrow Motor Car Co.; S. T. Davis, Jr., Locomobile Co. of America; Thos. Henderson, Winton Motor Carriage Co.; Hugh Chalmers, Chalmers Motor Co.; Herbert Lloyd, Columbia Motor Car Co.

In addition to re-electing this board of managers, the association passed a vote of appreciation and endorsement of their guidance and services.

As is usual at annual meetings, most of the proceedings were of a routine nature, about the only thing that departed from the usual being the adoption of a resolution which may result in permitting the Licensed Dealers' Association of New York to become affiliated with the A. L. A. M. itself in the promotion of the national show in Madison Square Garden and thus participate, in a modest way at least, in the profits that accrue. The matter will be decided by the board of managers. Because of foreknowledge that something of the sort would be done, reports, manifestly absurd, had appeared in print that the dealers' association would take over the management of the Garden show.

During the course of Thursday's meeting there was considerable discussion of trade conditions, which, from reports then rendered, appear to be even healthier than at this time last year. It stated that these reports show that the increase in the automobile business during the past twelve months was almost 100 per cent., a record that has no comparison in any other line of trade. It was agreed that a conservative policy with increased care in the manufacturing and marketing of cars was the best procedure for the 1911 trade. There are now some 6,500 dealers handling the products of the licensees under the Selden patent.

## Two Importers Make Peace with A.L.A.M.

Two of the 18 importers against whom suits for alleged infringement of the Selden patent were filed in September last have made their peace with the Association of Licensed Automobile Manufacturers. They are the Daimler Import Co., of New York, which handles the Mercedes car, and the Hotchkiss Import Co., of New York, which represents the English car of that name. Both have been granted Selden licenses and been allotted space in the Madison Square Garden show.

## Hall Leaves Lamps to Join Barnes.

Charles M. Hall, secretary and general manager of the C. M. Hall Lamp Co., of Detroit, Mich., has resigned those offices and on January 1st will become the general representative of Claire L. Barnes & Co., of that city, which firm recently was formed to handle Billings & Spencer forgings and Van Wagner dies. Hall, however, will continue to have headquarters in Detroit.

## To Manufacture Motor Cars in Virginia.

The Richmond Iron Works Corporation, a big concern in the Virginia city of that name, which has been producing automobiles in an experimental way, is erecting a special building for their manufacture and purposes going into the business in real earnest. The car will be styled the Virginian.

## "FISHING EXPEDITION" FAILS

**Moto Bloc Cannot Examine Tire Men to Find Cause for Suit Against Them—Lower Court Reversed.**

If Leon D. Kaufmann and the Moto Bloc Import Co., of which he is president, etc., really believe that there exists in the automobile tire industry a conspiracy or combination in restraint of trade, they will have to produce reasons and not suspicions and not use the New York courts for "fishing expeditions." This in effect is the decision of the Supreme Court, Appellate Division, First Division, which just has been rendered in the more or less famous case of the Moto Bloc Import Co. vs Lee W. Bennett and Joseph M. Gilbert.

The Moto Bloc company had been engaged in the sale of tires at cut prices, but one day last summer it discovered that it no longer could obtain tires in the same old way. It laid the blame at the door of the Dealers Protective Association, which had been organized in New York by seven tire manufacturers to correct abuses in the trade and generally to assist the retail trade. Accordingly, the Moto Bloc company, claiming that it had been blacklisted, applied to the court for permission to examine Bennett, the manager of the association, and Gilbert, the manager of the only tire concern involved—the Continental Caoutchouc Co.—which is a New York corporation, to discover whether the Moto Bloc suspicions were correct. The court granted the application, and Bennett and Gilbert through their attorney, S. S. Meyers, as promptly secured a stay and carried the case to the Appellate Division of the Supreme Court, which just has reversed the lower tribunal. Kaufmann, the Moto Bloc president, meanwhile had asked the Department of Justice at Washington to investigate, and periodically the more sensational of the New York newspapers have printed "scare stories" regarding the "automobile tire trust," which seemed to bear Kauf-

mann's easily recognizable thumb marks.

In its application, the Moto Bloc Import Co. declared that it desired to examine Bennett in order that it "may intelligently frame a complaint on which it may base its action for the recovery of damages."

In its decision, against the Moto Bloc company, which is supported by numerous citations, the Appellate Division says:

"It is evident that the applicant's theory is that the combination of manufacturers, their manager and agents, by which it has been deprived of purchasing automobile tires at wholesale prices, was unlawful in that it was in violation of some statute of the State or of the United States, or in violation of its common law rights, and that the parties thereto are liable in damages, each for the acts of the others owing to the agreement in the nature of a conspiracy. It is manifest that the examination is desired in order to enable the applicant to determine whether or not it has a cause of action, and if so, against whom, for if the applicant knows that it has a cause of action and who are liable, then it could have commenced an action by serving a summons and thereafter, if necessary, have obtained an examination of the defendants to enable it to frame its complaint.

"The learned counsel for the appellant contends broadly that an examination of a witness or of a person intended to be a party may be had before action brought for the purpose of enabling the applicant to determine whom to sue and also to enable it to frame a complaint. It has long been the settled rule that an examination of a party or of a witness will not be allowed either in advance of or after action brought for the purpose of discovering whether or not the applicant or the plaintiff has a cause of action. An examination has been allowed in some instances where a cause of action was clearly shown, but the examination was necessary to ascertain who was liable therefor. The rule, however, has been consistently adhered to in this department that an examination will not be allowed for the purpose of discovering who is liable on a cause of action shown to exist in favor of the applicant, nor may a witness who is not an intended party be examined for the purpose of enabling the applicant to frame his complaint. In some instances where an application was made for the examination of an intended party before service of the summons, it clearly appearing that the applicant had a cause of action and that he intended in good faith to prosecute it, the courts have, without discussing the question of power, allowed examinations to enable the applicant to frame the complaint instead of denying the same until the service of the summons. Since, however, an examination will not be permitted for the purpose of enabling the applicant to ascertain whether he has a cause of action

or whom to sue, there is no necessity, whether the courts have power or not, of permitting the examination to enable the applicant to frame his complaint until after the service of the summons, which will indicate that he intends to prosecute the action in good faith and not leave it uncertain as to whether after the examination he will bring or abandon the action. The rule is that examinations are not allowed until necessary, and hence it is that an examination is not allowed until after issue joined unless required to enable the plaintiff to frame his complaint. Moreover, it has been recently held in this department and in the second department on an examination of the provisions of sections 870 to 873 inclusive of the Code of Civil Procedure and their history, that an examination either of a witness or of an intended party in advance of the commencement of an action is only authorized to perpetuate testimony, in which case the circumstances, which render it necessary for the protection of the applicant's rights that the testimony should be perpetuated, must be shown. In the case at bar no facts or circumstances are shown rendering it necessary to perpetuate the testimony sought to be obtained, nor is it claimed that the examination is sought for that purpose. It follows, therefore, that the order should be reversed with \$10 costs and disbursements, and motion to vacate this order granted with \$10 costs."

#### Nebraska Factory Going to Indiana.

Conflicting reports regarding the intentions of the American Automobile Mfg. Co. which was organized several months ago to take over and enlarge the plant of the Jonz Automobile Co., Beatrice, Neb., finally have been straightened out. During last week a deal was closed whereby the Beatrice factory itself will be removed to New Albany, Ind., and the main office established in Louisville, Ky., which is just across the river from New Albany. Louisville capital already is largely interested in the American company. Reports that a branch factory would be located in Kansas City arose from the fact that the Kansas City Real Estate Association had offered inducements to that end and though a site at that point recently was inspected no definite decision has been reached.

#### Patent Company, Too, Retains Old Officials.

Following the annual meeting of the A. L. A. M. on Thursday last, the Association Patents Co., the subsidiary corporation which owns or controls a large number of patents—other than the Selden patent—represented by various members of the license association, held its annual session, at which the chief business was the election of officers for the ensuing year. No changes were made in the official slate, however, the following officials being unanimously returned to office: President,

Charles Clifton, Pierce-Arrow Motor Car Co.; vice-president, Thos. Henderson, Winton Motor Carriage Co.; secretary and treasurer, Alfred Reeves. Directors: George Pope, Pope Mfg. Co.; I. H. Page, Stevens-Duryea Co.; L. H. Kittredge, Peerless Motor Car Co.; Hugh Chalmers, Chalmers Motor Co.; R. E. Olds, Reo Motor Car Co., and Herman F. Cuffin on patent matters.

#### Klaxon Stops Two More Price Cutters.

Following up its policy of rigidly maintaining the price of its productions, the Lovell-McConnell Mfg. Co., of Newark, N. J., has obtained injunctions against two more concerns that were cutting the price of the Klaxon warning signals, viz.: the Cut-Price Auto Supply Co., of Boston, Mass., and Matthew Strauss, of Buffalo, N. Y. The Klaxon people were put to some pains in running down the Boston offenders, who were doing business in a small way and, it appears, under assumed names. The names of the owners of the business were given as H. Reece and Louis Reece, but in the end it was found that their true names were H. Rothenberg and Louis Rothenberg, and the permanent injunction as finally issued was made out against H. Reece and Louis Reece, alias H. Rothenberg and Louis Rothenberg, doing business under the name the Cut-Price Auto Supply Company.

#### Fire Destroys Hartford Tire Branch.

Fire on Thursday night last, 3d inst., totally destroyed the Hartford Rubber Works Co.'s Philadelphia branch at 1425 Vine street, the large stock of automobile, bicycle and motorcycle tires being entirely ruined; the total loss was about \$75,000. Within 24 hours, however, the Hartford company secured a temporary location at the southwest corner of Juniper and Cherry streets, where with an entirely new stock of Hartford tires and sundries of all kinds business is going on as if nothing had happened.

#### Wagon Makers to Build Motor Trucks.

Mathias, Weber & Co., wagon makers of Dayton, Ohio, are making ready to take up the manufacture of motor trucks. It is not likely, however, that the new vehicle will be on the market for several months.

#### Fire Damages Lubricants Establishment.

The stock and fixtures of the New York & New Jersey Lubricants Co., at 49 Front street, New York, were damaged by fire on Wednesday of last week, 2d inst. The insurance amounted to \$14,500.

#### Clover Leaf Shows Signs of Withering.

John C. Paxson has been appointed receiver for the Clover Leaf Machine & Axle Co., South Bend, Ind., which manufactures automobile axles and parts.

**M. A. M. LINE-UP FOR BOTH SHOWS**

**How the Members Have Indicated Their Preference—Most of Them Will Exhibit the Full Two Weeks.**

Allotment by the Motor and Accessory Manufacturers, Inc., of the space for which they had contracted at the New York and

Chicago national shows, indicates that more members of the organization will "sit out" the full two weeks in both cities than at first appeared probable, the second or "commercial vehicle weeks" having proved more attractive than was thought would be the case. In New York, 146 members of the M. A. M. will exhibit during the first week, January 7-14, and 114 during the following week. In Chicago, 121 will be in evidence

at the first week's show, January 28-February 4, and 97 during the following week when the trucks will replace the pleasure cars. Exactly how the M. A. M. exhibitors have lined up is shown by the following table in which the number 1 indicates those who will exhibit the first week and number 2 those who will exhibit the second week; the figure 0, of course, indicates not exhibiting:

	New York		Chicago			New York		Chicago	
Ajax-Grieb Rubber Co.	1	0	1	0	Hartford Suspension Co.	1	2	1	2
American Ball Bearing Co.	1	2	1	2	Havoline Oil Co.	1	2	1	2
American Ever-Ready Co.	1	2	1	2	Haws, Geo. A.	1	2	1	0
Atwood-Castle Co.	1	2	0	0	Hayes Mfg. Co.	1	2	1	2
Auburn Auto-Pump Co.	1	0	1	0	Heinze Electric Co.	1	2	1	2
Aurora Automatic Machine Co.	0	0	0	2	Herz & Co.	1	2	0	0
Auto Improvement Co.	1	2	1	2	Hess-Bright Mfg. Co.	1	2	0	0
Auto Parts Mfg. Co.	0	0	1	2	Hoffecker Co.	1	2	0	0
A-Z Co.	1	2	0	0					
Apple Electric Co.	1	2	0	0	Imperial Brass Mfg. Co.	0	0	1	2
Badger Brass Mfg. Co.	1	2	1	2	Jones Speedometer Co.	1	2	1	2
Baldwin Chain & Mfg. Co.	1	2	1	2	Jones & Co., Phineas	1	2	0	0
Batavia Rubber Co.	1	0	1	0	Johnson & Co., Isaac G.	1	2	0	0
Bosch Magneto Co.	1	2	1	2					
Bowser & Co., S. F.	1	2	1	2	Kent Mfg. Works, Atwater	1	0	1	0
Briggs & Stratton Co.	1	2	1	2	Kokomo Electric Co.	1	2	1	2
Briscoe Mfg. Co.	1	2	1	2	Kellogg Mfg. Co.	1	2	1	2
Brown-Lipe-Chapin Co.	1	2	1	2					
Brown-Lipe Gear Co.	1	2	1	2	Leather Tire Goods Co.	1	0	1	0
Byrne-Kingston Co.	1	2	1	2	Lebanon Steel Castings Co.	1	2	0	0
					Lee Co., J. Ellwood	1	0	0	0
Carpenter Steel Co.	1	2	1	2	Light Mfg. & Foundry Co.	1	2	0	0
Chandler Co.	1	2	0	0	Link-Belt Co.	1	2	1	2
Chase & Co., L. C.	1	0	0	0	Long Mfg. Co.	0	0	1	0
Cleveland Speed Indicator Co.	1	2	1	2	Lovell-McConnell Mfg. Co.	1	2	1	2
Coes Wrench Co.	1	2	0	0	Livingston Radiator & Mfg. Co.	1	2	0	0
Columbia Lubricants Co.	1	2	0	0					
Columbia Nut & Bolt Co.	1	2	0	0	McCord Mfg. Co.	1	0	1	0
Connecticut Telephone & Electric Co.	1	2	1	2	McCue Co.	1	0	1	0
Consolidated Rubber Tire Co.	1	2	1	2	Manufacturers' Foundry Co.	1	0	0	0
Continental Caoutchouc Co.	1	2	1	2	Mezger, C. A.	1	2	1	2
Continental Motor Mfg. Co.	0	0	1	2	Michelin Tire Co.	1	2	1	2
Continental Rubber Works Co.	1	2	0	0	Morgan & Wright	1	2	1	2
Cook's Sons, Adam	1	2	1	0	Mosler & Co., A. R.	1	2	0	0
Cook's Standard Tool Co.	1	0	1	2	Motsinger Device Mfg. Co.	1	0	1	0
Cowles & Co., C.	1	0	0	2	Motz Clincher Tire & Rubber Co.	1	2	1	2
Cramp & Sons Ship & E. B. Co.	1	2	1	2	Muncie Gear Works	1	2	1	2
Chicago Telephone Supply Co.	1	2	1	2	Muncie Wheel Co.	1	0	0	0
Crucible Steel Co.	1	2	0	0	Miller Rubber Co.	1	2	0	0
Deitz Co., R. E.	1	0	1	0	National Carbon Co.	1	2	1	2
Diamond Chain & Mfg. Co.	1	2	1	2	National Coil Co.	1	0	1	2
Diamond Rubber Co.	1	2	0	0	National Tube Co.	1	2	1	2
Dixon Crucible Co., Jos.	1	2	1	2	Never-Miss Spark Plug Co.	0	0	1	0
Dover Stamping & Mfg. Co.	1	0	1	0	New Departure Mfg. Co.	1	2	0	0
Driggs-Seabury Ordnance Corp.	1	2	1	2	New York & New Jersey Lub. Co.	1	2	1	2
					Newark Rivet Works	1	2	0	0
Edmunds & Jones Mfg. Co.	1	2	1	2	Noera Mfg. Co.	1	0	0	0
Edison Storage Battery Co.	1	2	1	2					
Electric Storage Battery Co.	1	2	1	2	Oliver Mfg. Co.	1	2	1	2
Eiseman Magneto Co.	1	2	1	2					
Empire Tire Co.	1	2	1	2	Pantasote Co.	1	0	1	0
Excelsior Motor & Mfg. Co.	1	2	1	2	Parker Motor Co.	1	2	0	0
					Pennsylvania Rubber Co.	1	2	1	2
Firestone Tire & Rubber Co.	1	2	1	2	Pittsfield Spark Coil Co.	1	2	1	2
Fisk Rubber Co.	1	2	1	2					
Frost Gear & Tool Co.	1	0	0	0	Randall-Faichney Co.	1	2	0	0
					Rands Mfg. Co.	1	2	1	2
G & J Tire Co.	1	2	1	2	Remy Electric Co.	1	2	1	2
Gabriel Horn Mfg. Co.	1	2	1	2	Republic Rubber Co.	1	2	1	2
Gasolene Motor Efficiency Co.	1	2	1	2	Richenbach Laboratories Co.	1	0	1	0
Gemmer Mfg. Co.	1	2	1	2	Russell Motor Axle Co.	1	0	1	0
Gilbert Mfg. Co.	1	0	1	0	Ross Gear & Tool Co.	0	2	1	2
Globe Machine & Stamping Co.	1	0	1	0	Royal Equipment Co.	1	2	1	2
Goodrich Co., B. F.	1	2	1	2					
Goodyear Tire & Rubber Co.	1	2	1	2	Standard Thermometer Co.	1	2	1	0
Gray & Davis	1	2	1	2	Sager Co., J. H.	1	0	1	0
Gray & Hawley Mfg. Co.	0	0	1	2	Seamless Rubber Co.	1	0	0	0
					Shaler Co., C. A.	1	0	1	0
Hardy Co., R. E.	1	0	1	0	Sherwin-Williams Co.	1	0	0	0
Harris Oil Co., A. W.	1	2	1	2	Smith Co., A. O.	1	2	1	2
Hartford Rubber Works Co.	1	2	1	2	Sparks-Withington Co.	1	2	1	2

	New York		Chicago			New York		Chicago	
Spicer Mfg. Co.	1	2	1	2	Valentine & Co.	1	2	0	0
Splittorf, Inc., C. F.	1	2	1	2	Van Wagner Mfg. Co., E. B.	1	2	1	2
Sprague Umbrella Co.	1	2	1	0	Veeder Mfg. Co.	1	2	1	2
Springfield Metal Body Co.	1	0	0	0	Vesta Accumulator Co.	1	2	1	2
Standard Roller Bearing Co.	1	2	1	2	Vanadium Metals Co.	1	0	0	0
Standard Welding Co.	1	2	1	2					
Star Rubber Co.	1	2	1	0	Witherbee Igniter Co.	1	0	0	0
Stewart & Clark Mfg. Co.	1	2	1	2	Warner Gear Co.	1	2	1	2
Stromberg Motor Devices Co.	1	2	1	2	Warner Instrument Co.	1	2	1	2
Swinehart Tire & Rubber Co.	1	2	1	2	Warner Mfg. Co.	1	2	1	2
Sireno Co.	1	0	1	0	Weed Chain Tire Grip Co.	1	2	1	2
Stein Double Cushion Tire Co.	1	2	1	2	Western Motor Co.	0	0	1	2
Stevens Mfg. Co.	1	2	1	2	Wheeler & Schebler	1	2	1	2
					Whiteley Steel Co.	0	0	1	2
Thermoid Rubber Co.	1	2	1	2	Whitney Mfg. Co.	1	2	1	2
Timken Roller Bearing Co.	1	2	1	2	Williams Co., J. H.	1	2	1	2
Timken-Detroit Axle Co.	1	2	1	2	Willard Storage Battery Co.	1	0	1	0
Turner Brass Works	1	2	1	2	White & Bagley Co.	1	0	0	0
					Western Tool & Forge Co.	1	2	1	2
U. S. Light & Heating Co.	1	2	1	2					
Vacuum Oil Co.	1	2	0	0	Young, Orland W.	1	2	0	0

### Car Makers Booked for Palace Show.

That the "independent" show in Grand Central Palace, New York, Dec. 31-Jan. 7, will not lack exhibits of cars, some of them of wide repute, is indicated by the first "show-down" of the promoters, which was made last week. The list of automobile builders who have booked space is as follows:

Abbott Motor Co., Detroit, Mich.; American Motor Truck Co. of Michigan, Detroit, Mich.; Atterbury Motor Car Co., Buffalo, N. Y.; American Motor Truck Co., Lockport, N. Y.; H. H. Babcock Co., Watertown, N. Y.; L. J. Bergdoll Motor Car Co., Philadelphia, Pa.; Carhartt Auto Corp., Detroit, Mich.; C. S. Baeder (Lexington Motor Car Co.), New York, N. Y.; Car Makers' Selling Co., Chicago, Ill.; Chase Motor Truck Co., Syracuse, N. Y.; Chicago Pneumatic Tool Co., Chicago, Ill.; Cortland Motor Wagon Co., Cortland, N. Y.; Clarke-Carter Auto Co., Jackson, Mich.; Columbus Buggy Co., Columbus, O.; Demot Car Sales Co., Detroit, Mich.; F. A. L. Motor Car Co., Chicago, Ill.; F-Z-H Parts Co., Chicago, Ill.; Findlay Motor Co., Findlay, O.; Gramm Motor Car Co., Bowling Green, O.; Harry S. Hought Mfg. Co., New York, N. Y.; Imperial Auto Co., Jackson, Mich.; Johnson Service Co., Milwaukee, Wis.

Kelly Motor Truck Co., Springfield, O.; Krit Motor Car Co., Detroit, Mich.; Lion Motor Car Co., Adrian, Mich.; Metz Co., Waltham, Mass.; Martin Carriage Works, York, Pa.; Michigan Buggy Co., Kalamazoo, Mich.; New Haven Truck & Auto Works, New Haven, Conn.; Albert L. Otto (Saurer Truck), New York, N. Y.; Owosso Motor Co., Owosso, Mich.; Parry Auto Co., Indianapolis, Ind.; W. A. Paterson Co., Flint, Mich.; Penn Motor Car Co., East Liberty, Pa.; Penn-Unit Car Co., Allentown, Pa.; J. M. Quinby & Co. (Isotta), Newark, N. J.; Roder Car Co., Brockton, Mass.; Scioto Auto Car Co., Chillicothe, O.; Spencer, Llaana Brenner Co., New York, N. Y.; Staver Carriage Co., Chicago, Ill.; Warren Motor Car Co., Detroit, Mich.; West Side Garage & Motor Co. (Seitz), New

York, N. Y.; Whiting Motor Car Co., Flint, Mich.

### Dissatisfaction Not Due to the Makers.

Some one in Salt Lake City got the facts somewhat twisted in reporting the result of the suit of Mrs. M. E. Smith of that city, for the recovery of the purchase price paid for a Columbia electric, \$1,650, which when delivered was found to contain an old and worthless tray of batteries. It transpires that the judgment was rendered not against the makers, the Columbia Buggy Co., but against the Salt Lake dealers who sold the car, the Consolidated Wagon & Machine Co., and that the vehicle was returned not to the factory, but to the dealers. It also was brought out that the battery was tampered with after it left the factory in Columbus, Ohio, and sometime after it had reached Salt Lake City, no blame whatever attaching to the manufacturers.

### Bruce Becomes a United States "Energizer."

John M. Bruce, former sales manager for the United Manufacturers, Inc., has been "taken over" by the United States Motor Co. and will fill a somewhat unusual role. He will devote most of his time to the training of salesmen, agents and dealers as to the best methods of selling the cars affiliated with the United States company, making a special study of conditions in each dealer's respective territory, seeking to unravel any existing difficulties and generally to energize the dealer and his salesmen in the selling of cars. He will be attached to the headquarters staff in New York but will spend most of his time "on the road."

### Shiland and Collins are Shifted.

H. E. Shiland has resigned the sales management of the Buick Motor Co., of Flint, Mich., to become general manager of the Marquette Motor Co., of Saginaw, Mich. Both concerns are General Motors' properties. Shiland's place in the Buick establishment has been filled by the appointment of R. H. Collins, former manager of the Buick branch in Kansas City.

### Death Claims Founder of Corbin Industries.

Philip Corbin, president of the American Hardware Corporation and founder of P. & F. Corbin and of the other enterprises bearing that name, including the Corbin Motor Vehicle Corporation, died at his home in New Britain, Conn., on Thursday last, 23d inst. He was 86 years of age. He was one of six brothers, five of whom at different periods were associated with him in his remarkable career, which really dated from the year 1849, when with his brother Frank and Edward Doen, and a combined capital, they formed the firm of Doen, Corbin & Co. in New Britain, Conn., and commenced the manufacture of hardware, brass ox balls constituting their first production. In 1851, the firm became P. & F. Corbin, gradually expanding to its present immensity and throwing out various branches, among them the Corbin Cabinet Lock Co., the Corbin Screw Corporation, and the Corbin Motor Vehicle Co. In 1903 P. & F. Corbin and the Russell & Erwin Mfg. Co., in whose factory Mr. Corbin himself had been employed in his early youth, were taken over by the American Hardware Corp., of which Mr. Corbin became president. He was prominent in nearly all walks of life in his native state and was respected by all who knew him. As a youth he was noted for his great strength and vigor, much of which he retained in his old age, for despite his advanced years he was actively interested and played a real part in the conduct of his enterprises until a few months ago.

### Routine Business at N. A. A. M. Meeting.

Only routine business was transacted at the regular monthly meeting of the National Association of Automobile Manufacturers in New York last week, legislative affairs and show matters—the "independent" show in Grand Central Palace, New York, among them—being the chief topics of discussion. Among other things the transfer of the Willys-Overland Co.'s representation in the association from John N. Willys to George W. Bennett was recorded.



**SEPTEMBER'S GAIN 62 PER CENT.**

**Exports Continue to Bound Upward—  
France and Asia Account for the  
Month's Notable Advances.**

Bearing out the often repeated statement that there ought to be no "season" in automobile exports, the figures for September, 1910, show a decided gain over those of the same month of 1909, the number of exported cars being 592, valued at \$607,258, as against 286 cars, worth \$373,754, an increase of 62 per cent.

Great Britain, which for some time past has regularly increased its purchases, in September, 1910, dropped below the amount taken in the same month of last year, the respective values being \$96,029 and \$105,244, respectively. France, on the other hand, which for many months had decreased its quota, bought more than twice as many cars in September of the current year than in the same period of 1909, the figures being \$46,122 and \$20,132, respectively. "Other Asia and Oceania," which hitherto had only bought small quantities of American cars, increased its purchases by over 1,000 per cent. over those of September, 1909, buying \$105,071 worth as compared with \$9,676. South America registered only a slight decrease, its purchases in September, 1910, totaling \$6,000 less than those in the same period of 1909. Canada, though still the greatest individual buyer, showed only a slight increase as compared with September, 1909, the figures being \$248,232 and \$216,833, respectively.

The figures for the nine months ending September, 1910, still show the general upward tendency, \$8,874,066, as against \$5,481,707. With the sole exception of France every one of the twelve geographical divisions took more than during the same period of last year; in the case of Other Asia and Oceania this increase amounting to nearly 400 per cent. Canada still is the heaviest purchaser with \$4,137,771, with the United Kingdom second, with \$2,383,013, and France third, with \$659,859. The report in detail:

	September		Nine Months End September		
	1909	1910	1908	1909	1910
Automobiles, and Parts of—					
Automobiles .....	\$373,754	\$607,258	\$3,805,569	\$5,481,707	\$8,874,066
Parts of (not including tires) .....	91,658	137,438	477,159	618,150	1,545,933
Exported to—					
United Kingdom.....	105,244	96,029	1,541,480	1,712,970	2,383,013
France .....	20,132	46,122	533,334	759,896	659,859
Germany .....	3,109	14,976	145,732	154,820	299,748
Italy .....	85	5,956	219,533	214,430	353,585
Other Europe.....	15,349	27,518	192,274	282,435	620,968
Canada .....	216,833	248,232	997,882	1,963,286	4,137,771
Mexico .....	23,185	67,933	218,670	317,471	499,527
West Indies and Bermuda.....	15,848	21,107	121,473	219,494	291,745
South America.....	21,488	15,296	98,158	147,466	301,947
British Oceania.....	24,345	71,727	59,380	162,111	334,222
Other Asia and Oceania.....	9,676	105,071	104,833	79,783	386,032
Other Countries.....	10,118	24,729	49,979	80,695	151,582
Total.....	\$465,412	\$744,696	\$4,282,728	\$6,099,857	\$10,419,999

**Steenstrup Finally Tenders Resignation.**

Peter S. Steenstrup has "resigned" the secretaryship of the Motor and Accessory Manufacturers and at last week's meeting of the board of directors the resignation gravely was accepted and entered on the minutes. As a matter of fact, however, L. M. Wainwright some three months ago was elected to succeed Steenstrup, who went to the far West to shoot bears and fish for salmon and who wound up by engaging in the retail trade in Spokane. He thereby automatically forfeited his office in the M. A. M., which was filled by the election of Wainwright. Then, after a long lapse, Steenstrup evidently deemed it advisable to resign.

**Mail Order Man Escapes with \$50 Fine.**

Earl L. Ryno, president and general manager of the Belle Isle Motor Co., Detroit, Mich., who was indicted by a Federal grand jury for fraudulent use of the mails, was allowed to plead nolo contendere (no defense) in the United States District Court in Detroit on Thursday last and was fined \$50. Ryno tried to sell automobiles by mail and the charges against him were due to his failure to deliver the goods to those who had forwarded him money. He was once tried by a jury which disagreed. In March, 1909, Ryno sold his business to the New Belle Isle Motor Co., of Detroit, Mich.

**Record Order for Tire Treads.**

The Elyea-Austell Co., of Atlanta, Ga., has been appointed Southern distributor for the Leather Tire Goods Co.'s Woodworth tire treads, for which, the makers say, an order amounting to \$550,000 has been placed. Part of the order, which undoubtedly is of record size, is for immediate shipment and the remainder for delivery during 1911.

**St. Louis Men Launch Truck Project.**

Charles E. Brooks and Charles and Allen T. Latta, who have organized the Brooks-Latta Auto Co., in St. Louis, Mo., have in view the manufacture of motor trucks. The concern has been incorporated with capital stock of \$150,000.

**FIXING STANDARDS FOR METALS**

**Engineers' Society Makes Progress in that  
Direction—Three Committees Have  
the Work Well in Hand.**

As a result of the meeting in New York last week of the Iron and Steel Division of the Society of Automobile Engineers' standardization committee, the standard form of specimen used in testing automobile materials probably will be changed, and instructions as to the use of the test specimens and testing machines soon will be issued.

The Division took up consideration of the specifications for materials for automobile construction, which had previously been prepared by Henry Souther and distributed to the several hundred of S. A. E. members in the form of advance sheets.

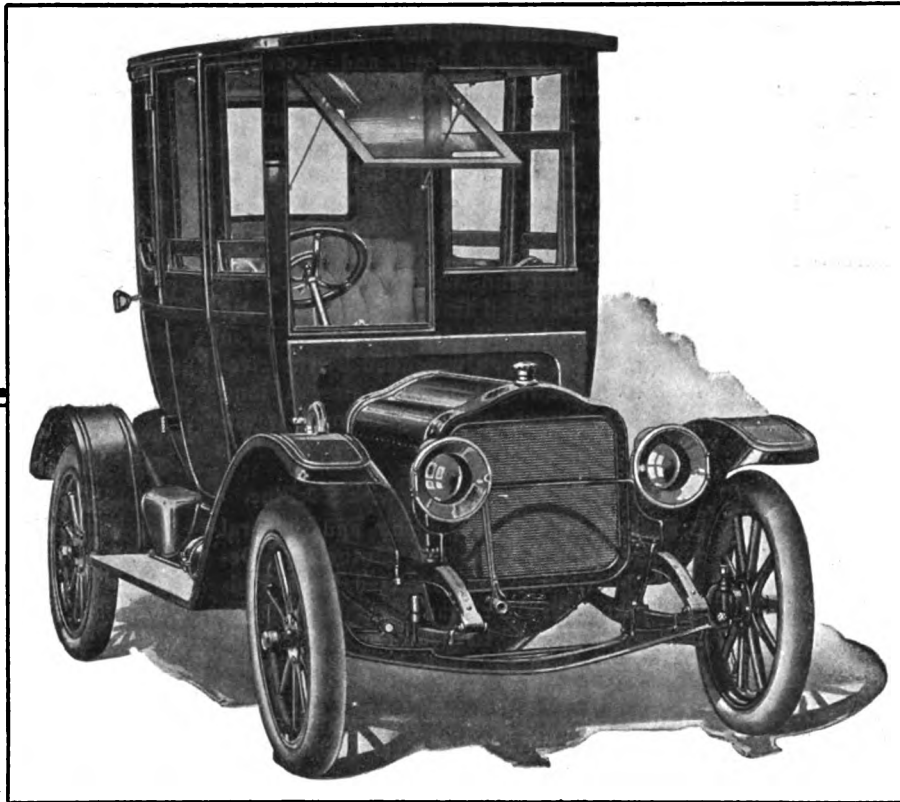
Specifications for recommendations to the society of the following steels and irons were taken up in detail and acted upon: .15 carbon steel, .25 carbon steel, .45 carbon steel, .80 and .95 carbon steel (primarily for springs), .20 carbon 3½ per cent. nickel steel, .30 carbon 3½ per cent. nickel steel, .30 carbon chrome nickel steel, .20 carbon chrome nickel steel, .45 carbon chrome nickel steel, .15 carbon chrome nickel steel, .20 carbon chrome vanadium steel (primarily for case-hardening), .45 carbon chrome vanadium steel, silico-manganese steel, valve metals, steel castings, gray iron castings and malleable iron.

The following points will be considered at the next meeting of this division: Pyrometer and heat control; description and definition of heat treatments, tabulation of physical results of heat treatments.

A standard order of statement of the different elements in the metals will be recommended, something as follows: (1) carbon, (2) manganese, (3) silicon, (4) phosphorus, (5) sulphur, (6) chromium, (7) vanadium. The elements are now given in the forms of various laboratories and mills in many different ways, and standardization will eliminate much confusion and loss of time in trying to determine the composition of these various combinations.

The members of the Iron and Steel Division who were in attendance at last week's meetings were: Howard E. Coffin, president of the society; Henry Souther, chairman of the standards committee; W. P. Barba, Midvale Steel Co.; E. L. French, Crucible Steel Co. of America; M. T. Lothrop, Halcob Steel Co.; Coker F. Clarkson, secretary.

This week two other divisions of the S. A. E. standards committee are holding meetings at the society's office. These divisions are those on aluminum and copper alloys, and on plain, ball and roller bearings.



## A Town Car a Woman Can Crank

**T**HE sole objection to gasoline cars for women's driving has been the difficulty in cranking the engine. Every White Car has a compression release which makes cranking so easy a child can do it, and without danger of back fire. This one feature alone would make the White Coupe distinctive, but it has a door on either side—the driver's seat folds up to make entrance easy from either side and it seats comfortably three or four persons besides the driver.

### The White Coupe

**E**VERYWHERE the White Coupe appears—whether it be the shopping district of our most metropolitan cities, or in the parks, it immediately arrests attention by its beauty—it is an aristocratic, elegant looking car with a snugness all its own. Its equipment is refined—it is electrically lighted and the upholstery and little accessories are all of the finest imported materials. Money cannot buy better—in fact, a woman's wants have been studied and nothing has been omitted that could contribute to her personal comfort.

Let us send you today our booklet on town cars  
which tells a more intimate story of these cars.

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"We like the Motor World very much and have not hesitated to recommend it. We like to push a good thing along. The paper is a credit to its publishers, and a welcome visitor to our office."—Evans Motor Car and Parts Mfg. Co., Detroit, Mich.

### Concerning the Long Stroke Motor.

Just as at various periods since the automobile attained an entity of its own the respective merits of the horizontal and vertical cylinder arrangement, the cooling problem, the relative suitability of two, four and six-cylinder construction and at least three prominent methods of valve arrangement have given rise to almost factional discussions, it is to be expected that for a time the relative merits of the long and short stroke and bore ratios will be discussed with more or less heat. It is not to be questioned that such debates, whether oral or conducted through the medium of the press, are of considerable value to the

industry. They serve to bring out new ideas, increase the popular fund of information in respect to technical matters, and serve to call attention to the real advantage which each of the several systems under discussion may happen to possess. That either the long or the short stroke motor ultimately will be given exclusive prominence in the field of automobile construction by no means is probable. It is far more likely that each will be developed to fit into certain classes of service to the exclusion of the other.

As far as the question of the superiority of the long stroke motor over the short, or the short over the long, is concerned, it is much the same as trying to argue over the respective merits of the human mechanism as found in long-legged men and short-legged men. As a matter of fact, if permitted to choose their own stride and pace and if in normal condition, the performance of both types of the man-engine may be equally efficient, calculated on a basis of heat-energy absorbed and useful work performed. So, in cases of perfectly suitable application, where it is made to work under favorable conditions, the short stroke motor is likely to prove as efficient as the long stroke, taking all things into consideration, and vice versa.

The truth of the matter is that up to this time the industry has not had sufficient leisure to work out a proper method of classification for its motors, nor even to determine in the broadest possible way what are the relative conditions under which each of many types will prove most satisfactory. Incidentally, it may not be generally known that a beginning is now being made in work looking toward a method of classifying engine performance in such a way as to permit the segregation of various types according to the work which they are fitted to perform. One of the sub-divisions of the standards committee of the Society of Automobile Engineers is investigating the subject of motor characteristics. The work in contemplation not only will permit a close study of engine performance with respect to working conditions, but will lead to a direct method for determining what style of construction will best suit certain given service requirements.

In the same connection it is worth while calling attention to the fact that the commonly accepted horsepower formula, that which, in this country bears the stamp of

the Association of Licensed Automobile Manufacturers, fails in the case of the true long-stroke motor. As the formula method of rating has become so general, particularly as it now enters into the automobile laws of several states, it would seem well within the province of the Engineers' Society to undertake a permanent settlement of the problem in whatever way may be practicable.

Now that Barney Oldfield is an outlaw and no longer can race under the auspices of any recognized sports-governing organization, there is left a yawning opportunity for some clean-cut young man with a reputation as an automobile driver. Oldfield filled a peculiar want, as the thousands of dollars of "easy money" which he picked up at state fairs and similar places serves to show. Automobile racing has become almost a fixture at such functions and the promoters are not slow to appreciate the value of "star attractions." The fact that one of them paid Oldfield \$3,000 for an appearance is evidence of the value placed on such attractions. A racing man of the right stripe, who need not stick a cigar in his face or indulge in grandstand plays, and who will not humbug the public with "dirt track" or "square track" or "circular track" records and similar devices, ought to be able to earn a comfortable livelihood and do something to raise the level of even state fair racing.

In addition to favoring a county bond issue, a Georgia good roads meeting last week passed resolutions "specially requesting the Georgia delegation in Congress to intercede with the national government for immediate aid in road-building in Georgia and in the entire Southern States." The resolution suggests that were Federal aid in highway improvement a part of Col. Roosevelt's "New Nationalism," that doctrine might strike responsive chords in men and places that now are hostile or indifferent to it. There is no doubt, as the Motor World many times has remarked, that if but a small part of the immense sums spent by the national government for pulling snags out of remote creeks and bayous were devoted to the improvement of the common roads far more and far greater health, wealth and prosperity would follow in its train and the greatest good for by far the greatest number be achieved.

## IN THE RETAIL WORLD.

Hanf & Martin are building a garage in Baltimore, Md. It is located at 1421 Maryland avenue.

The Shaffer Mfg. Co., of Baltimore, Md., opened its new salesrooms at 408-10 Calvert street on November 2d.

Under the management of N. L. Rush an agency has been opened in the Motor Mart, Boston, Mass., for Kline cars.

Henderson Brothers have begun the erection of a garage in Cambridge, Mass. It is of brick and located between Blake and Hadley streets.

Clyde Stranathan has bought out his partners in the Glenwood Garage, Glenwood, Iowa, and will operate the business alone in the future.

Broken Bow, Neb., now has a garage, the Broken Bow Automobile Co., which has been formed in the little town, having opened its establishment.

The Valparaiso Auto & Garage Co., which recently was organized in the Nebraska town of that name, has opened its garage. Clarence Lynch is the manager.

Work has been started on the new garage for the Ross Motor Co., on Tower avenue, Superior, Wis. The new structure will be 50 x 140 feet, of brick and concrete.

Wm. Richter, who with Claude Simmons operated the Motor Mart Garage in Freeport, Ill., has bought out his partner and will continue the business in his own name.

John Weinknecht has started work on a new garage at 2308 East Fayette street, Baltimore, Md. It will be of brick with concrete flooring, 26 x 40 feet, and will cost \$2,000.

Under the style the Crown Commercial Car Sales Co. a company has been formed in Philadelphia, Pa., to handle Crown commercial cars. Salesrooms have been opened at 32d and Walnut streets.

The three story garage at 5205-07 Delmar avenue, St. Louis, Mo., has just been completed and will be occupied by the Brown Automobile Co. The concern handles Detroit electrics and Peerless cars.

Work just has been completed on the new garage which George Lacey will manage at the corner of Monterey and El Sausal streets, Salinas, Cal. It is two stories high and will be opened this week.

Work has been started on the new garage for Roberts & Son, at Gray and Baldwin streets, Elmira, N. Y. It will be three stories high, 159 x 75 feet, with 20,000 feet of floor space, and will be ready for occupancy by December 1st.

The large building standing at the corner of Third and Connell streets, Wilmington, Del., and known as the Music Hall, has been converted into a garage. It is under the management of Andrew Johnston, and will afford room for 60 cars.

The new garage just completed on North Third street, Harrisburg, Pa., will be occupied by the Rex Auto Repair Co., recently organized in that city. The building is 105 x 210 feet and so constructed that the entire front can be thrown open.

Fiat cars will form the mainstay of a new salesroom and garage which just has been opened at 114 South Olive street, Los Angeles, Cal. Joseph G. Kirchhoff is manager of the company, which does business under the style the Pacific Coast Motor Car Co.

H. F. Abbott, of Grand Rapids, has formed the Regal Motor Sales Co. to handle Regal cars in that Michigan city. Associated with him in the enterprise are several prominent merchants of Grand Rapids.

W. H. and M. L. Rose, formerly owners of the St. Clair Auto Co., have, under the name Rose Brothers, opened a garage and salesroom in Greenburg, Pa. They will handle Hudson, Selden and Locomobile cars.

D. W. Reinohl, formerly identified with the Hoover suction cleaner, has organized the Empire Motor Car Co., for the sale of Empire cars in northern Ohio. His partner, G. C. Deffresne, who was connected with the Paris branch of the Mercedes factory, will have charge of the mechanical end of the enterprise. The garage and salesrooms are located at 6506 Euclid avenue, Cleveland, Ohio.

Guy Stutzman, formerly with the American Simplex Auto Co., of Mishawaka, Wis., has gone into business himself and opened a garage next to the Mishawaka hotel. He will do business under the style the Star Garage, and will handle Oakland cars. His quarters are 50 x 100 feet, of brick and concrete, and in addition boast of a machine shop 32 x 40 feet.

The big Hippodrome, of Chattanooga, Tenn., which was used as dance hall, roller skating rink and the like, has been remodeled and will be used hereafter as a garage and salesrooms for several automobile concerns. So far headquarters for the Mitchell Automobile Co., which handles Parry cars, and for Duffy & Bell have been opened in the structure. The latter handle accessories and do general repair work.

## Recent Losses by Fire.

Philadelphia, Pa. — Hartford Rubber Works Co., salesroom and stock destroyed; loss, \$75,000.

Quanah, Tex. — Panhandle Garage & Sales Co., building destroyed; loss, \$15,000.

Newark, N. J. — H. W. Johns-Manville Co.'s asbestos storage house burned; loss, \$10,000.

San Francisco, Cal. — Pullman Automobile Garage and thirty-five cars totally destroyed; loss, \$100,000.

Boston, Mass. — Garage at corner of Monument avenue and Harvard street and two cars destroyed; loss, estimated at \$10,000.

## COMING EVENTS

November 7-11, Chicago, Ill. — Reliability contest under auspices of Chicago Motor Club.

November 10-13, San Antonio, Tex. — San Antonio Automobile Club's races at International Fair grounds.

November 11, Savannah, Ga. — Savannah Automobile Club's light-car road race.

November 12, Savannah, Ga. — International road race for the Grand Prize of the Automobile Club of America.

November 12, Yonkers, N. Y. — Mount Vernon Automobile Club's racemeet at Empire track.

November 22-26, Lake Charles, La. — Louisiana Fair Association's race meet.

November 24, Redlands, Cal. — Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal. — Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, New Orleans, La. — Race-meet under auspices of New Orleans Automobile Club.

November 26-27, Los Angeles, Cal. — Motordrome races.

December 3-18, Paris, France — French Automobile Manufacturers' Salon in Grand Palais.

December 25-26, Los Angeles, Cal. — Twenty-four hours race at Motordrome.

December 31-January 7, New York City — "Independent" automobile show in Grand Central Palace.

January 2-7, New York City — Importers' automobile show in Hotel Astor.

January 15-21, Detroit, Mich. — Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 7-14, New York City — Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 16-21, New York City — Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-22, Detroit, Mich. — Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 28-February 4, Chicago, Ill. — National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill. — National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.



### THREE DAYS' SPORT AT ATLANTA

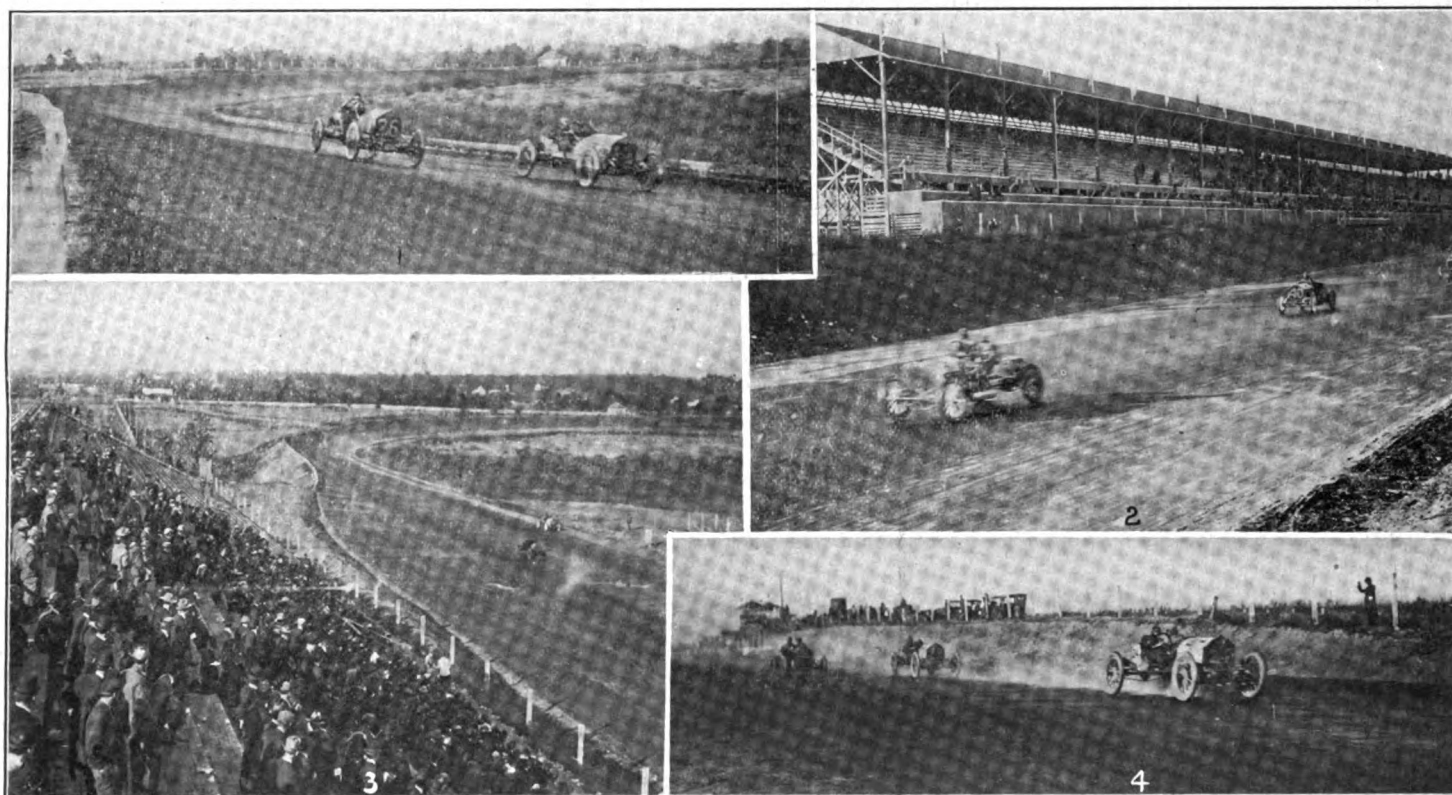
Dawson and Burman the Biggest Winners,  
Though Horan Takes Fattest Purse—  
Hard Luck Played Its Part.

There was some bully racing on the big two-miles circular track or speedway at Atlanta, Ga., on Thursday and Friday last, 3d and 4th inst., and again on Monday, 7th. The three days meeting under the auspices of the Atlanta Automobile Association had been well organized and well heralded,

trophy at his mercy when with but two of the 100 miles to go rear axle trouble forced him to stop long enough to lose his lead. On the 7th, Dawson was prominent in the 250 miles Grand Prize race and was leading many men in far more powerful cars when a contrary carburetter put him out.

When Dawson was forced to stop in the Coca Cola race on the first day, Frank Gelnaw in a Fal was enabled to win; he covered the 100 miles in 1:26:17.62. Dawson in capturing the Atlanta trophy on the 4th completed the 200 miles in 2:51:12.73. On Monday, after Dawson and nearly every

but the shouting when with but two miles to go, he was forced to stop at the repair pits because of rear axle trouble. He then was eight miles ahead of his nearest rival and though he worked frantically to repair the damage, he could not work fast enough and Gelnaw (Fal) and Knight (Westcott) passed him before he got going again, the finish being in the order named. Louis Disbrow (Pope-Hartford) was fourth and Pierce (Fal) fifth. The real fight was between Gelnaw and Knight. For nearly the entire distance they see-sawed in second position, but a few yards separating them,



1—GELNAW AND KNIGHT BATTLING FOR COCA COLA TROPHY  
3—THE BLEACHERS DURING THE GRAND PRIZE RACE

2—BURMAN (No. 40) REGAINING LOST GROUND IN GRAND PRIZE RACE  
4—AN INTERESTING MOMENT IN THE RACE FOR THE ATLANTA TROPHY

plump purses had been offered and racing stars of the first magnitude had been attracted, but the crowd failed to put in an appearance. The bleachers were quite thickly peopled, but the big grandstand was never in danger of being congested and on two of the three days, the grandstandees while numbering a couple of thousands or more looked almost lonesome in the vast space. The Atlanta stands had been constructed for 50,000 and not a mere 2,000.

Joe Dawson, the Marmon star and the sensation of the Vanderbilt cup race, really was the "hero" of the meeting. He and Bob Burman, the Marquette-Buick daredevil, each won four races, but Dawson figured more prominently in the "quality events." He captured the 200 miles Atlanta trophy on the second day and he was winning the feature events on each of the other days when the demon hard luck overtook him. On the 3d he had the Coca Cola

one in the race had suffered tire or other trouble, Joe Horan, in a Lozier, captured the Grand Prize, completing the 250 miles in 3:26:15.1. These three races constituted the cream of the meet and so far outclassed the others in point of interest and otherwise that the latter appeared almost like skim milk. While track records were shattered, only two records will get into the books—one made by F. A. Witt (E-M-F), who in the 12 miles stock chassis race on the 3d, broke the record for the 161-230 cubic inch class, his time being 11:05.33, and the other the speedway record for 250 miles created by Horan in the Grand Prize race.

The Coca Cola trophy race on the 3d was limited to the 301-451 class, nine contenders started, but from the crack of the gun until the 98th mile it was all Dawson. That Marmon pilot took the lead and on every lap drew further ahead. None of the others could live with him, and it all seemed over

but on the last lap Gelnaw found an extra link and letting it out, he won by about 100 yards.

Previous to the start of the Coca Cola race an impressive ceremony occurred. After the contenders had lined up it was announced that for 15 minutes not a car would move out of respect to the memory of Al Livingston, the National driver, who was killed the day previous while practicing on the track. The band played a solemn tune, all hats were removed and during the 15 minutes almost absolute quiet prevailed. Because of Livingston's death, the other National entries, of course, had been withdrawn.

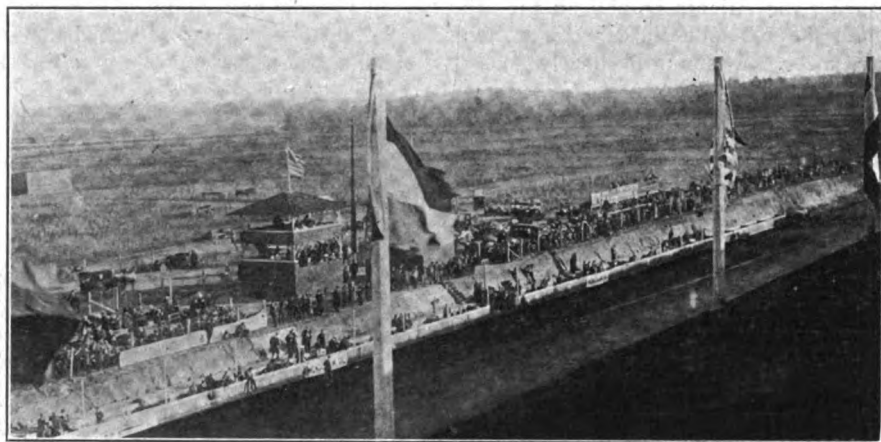
Although Dawson's hard luck lost him the Coca Cola trophy, he accounted for the 10 miles, 231-300 class, in hollow style. He simply ran away from the others, Heine-mann, one of Dawson's team mates, finished a poor second; the other four contenders

were nowhere. Ray Harroun, another of the Marmon stars, similarly accounted for the 20 miles free-for-all. This gave promise of being a good race until on the third mile a flat tire put out Burman (Marquette-Buick) and later a skipping engine caused Caleb Bragg (Fiat), who was making his first appearance as a "pro," to quit. Thereafter Harroun was never in danger and simply "put it all over" Joe Matson (Simplex) and Mulford (Lozier). He won by half

tire, but in the next lap Dawson also had tire trouble and Mulford regained the lead. On the 140th mile, the Marmon man again shed a tire, but made a swift change and when Mulford once more changed a tire, he regained his lost ground and in the 194th mile he went ahead and nothing that Mulford and his more powerful car could do could take the lead from him. He beat Mulford by four seconds in 2:51:12.73. There were 11 starters, but all the others were

handicap of 150 seconds, Adams (McFarlan) 120 seconds, was second and Harding (Stoddard-Dayton) scratch, third. Keplar's time was 7:22.45.

Monday's program was to have been decided on Saturday, but rain required that it be carried over. Three events were on the card, but only the Grand Prize 250 miles race was run. In addition to the trophy, victory carried with it a purse of \$3,000. Sixteen contestants started and, as so often is the case in long races, luck played a large part in the result. Early in the race it seemed as if Marmons would finish one, two, but first Dawson went down and out with a flooded carburettor on the 84th mile, and the same misfortune, plus a cracked cylinder, overtook Harroun on the 180th mile, after he had led from the fourth to the 120th mile; he then lost his advantage, but, driving like a demon, he was again in front at the 160th mile. Joe Horan (Lozier), the ultimate winner, drove a consistent race, alternating between third and fourth place most of the time; when Harroun was forced to quit he assumed the lead and was never headed, finishing the 250 miles in 3:26:15.10, thereby creating a new speedway record, since none existed for that distance. With Dawson and Harroun out, Burman (Marquette-Buick) must have won, for he had the speed, but stupid work in making tire changes at the repair pits cost him the victory. Burman made nine changes and at no time did the repair crew distinguish itself by quick work. The help-



GENERAL VIEW FROM TOP OF THE GRANDSTAND

a mile in 15:20:77. Burman, however, took the 10 miles Class D free-for-all in easy fashion. He stalled his motor in starting, but once under way he quickly overhauled Bragg (Fiat), Basle (Pope-Hartford) and Rutherford (Stearns) and Matson (Simplex) and won with lots to spare in 7:42:58. The others finished as named. Bragg came into his own and gathered his first pot of money in the mile time trials, which he won by covering the distance in 41:12. Mulford and Horan, both in Loziers, finished one, two in the 20 miles 451-600 class. Beardsley (Simplex) was the only other starter. Mulford's time was 16:13:02. From the competitive standpoint, the best race of the day was the 12 miles stock chassis 161-230 class which Witt (E-M-F) won in record time. He and Montague Roberts (Abbott-Detroit) remained within hailing distance until the last lap when Witt widened the gap to about 100 yards.

The racing on the second day, November 4th, was more interesting than that of the previous day. It opened with another victory for Witt (E-M-F) in the ten mile 161-230 class and ended with Dawson's triumph in the 200 miles for the Atlanta trophy, which latter was of course the feature event. Tire trouble served to add to the interest. The fight was between Dawson and Mulford. Matson (Simplex) led for the first 10 miles, when Mulford went ahead, followed by Horan and Dawson in that order, the Marmon man apparently being content to dog Mulford, and for 52 miles the order was Mulford, Horan, Dawson; the latter then passed Horan and until the 120th mile trailed Mulford, who soon after threw a

beaten off. Horan, the third man, was six miles behind and Gelnaw (Fal), the fourth one, 18 miles to the bad. Hughes (Fal), Matson (Simplex), and Keplar (McFarlan) were the other survivors.

Dawson also placed both the 12 miles



SCENE ON "GARAGE STREET" INSIDE THE PADDOCK

231-300 class and the 14 miles 301-450 class to his credit, in the latter beating Harroun, his team mate, and Basle (Pope-Hartford) after a running fight which proved the most exciting of the meet, the three men changing positions several times and finishing less than 30 yards apart. Burman won two events, the 10 miles and the 20 miles for Class D, in both of which Bragg (Fiat) and Harding (Stoddard-Dayton) were the runners-up.

The 10 miles handicap, Class D, went to Stanley Keplar (McFarlan) who had a

ers' fingers seemed to be all thumbs, and to make matters worse they twice made misfits. Burman, however, never despaired. He drove like mad, taking desperate chances and at the end was second to Horan and only 75 seconds behind. Mulford, Horan's team mate, broke a valve on the eighth mile and was 30 miles behind the leaders before a repair was effected and he was able to again get into the running. He nevertheless finished fifth. Matson and Beardsley, in Simplexes, finished third and fourth. Fann, an Atlanta driver who piloted

a McFarlan car, did notable work. Although hopelessly outclassed he stuck to his work and ran like a clock; he made no change of tires and stopped but once for oil and fuel. He finished sixth. A Halladay, a Westcott and a Firestone-Columbus were still running when the race was stopped. Disbrow's Pope-Hartford was eliminated by engine trouble early in the race, and his team mate, Basle, was put out soon after by a cracked cylinder. Church (Simplex) and Stoddard (Fiat) suffered steering gear trouble, which sent them flying through the fence, but fortunate without serious injury to themselves. The summaries:

#### Thursday, November 3d.

One hundred miles—Class B, 301 to 450 inches, for Coca Cola trophy and \$500.—Won by Frank Gelnaw, F. A. L.; second, Harry Knight, Wescott; third, Joe Dawson, Marmon. Time, 1:26:17.62.

One mile time trials.—Won by C. S. Bragg, Fiat, time, 41:12; second, Bob Burman, Buick, time, 42:95; third, Montague Roberts, Abbott-Detroit, time, 55:62.

Ten mile stock chassis, 231 to 300 inches.—Won by Dawson, Marmon; second, Heineman, Marmon; third, Gelnaw, F. A. L. Time, 8:34.70.

Twenty miles free-for-all—Won by Ray Harroun, Marmon; second, Joe Watson, Simplex; third, Ralph Mulford, Lozier. Time, 15:20.77.

Twelve mile stock chassis, 161 to 230 inches.—Won by F. A. Witt, E. M. F.; second, Montague Roberts, Abbott-Detroit; third, Mortimer Roberts, Abbott-Detroit. Time, 11:05.33.

Ten mile free-for-all.—Won by Burman, Marquette-Buick; second, Watson, Simplex; third, Bragg, Fiat. Time, 7:42.58.

Twenty mile stock chassis, 451 to 600 inches.—Won by Mulford, Lozier; second, Joe Horan, Lozier; third, Ralph Beardsley, Simplex. Time, 16:13.02.

#### Friday, November 4.

Ten mile stock chassis, Class B, division 2, 161 to 230 inches.—Won by Witt, E. M. F.; second, Montague Roberts, Abbott-Detroit; third, K. T. McKinstry, Firestone-Columbus. Time, 9:12.66.

Ten mile free-for-all, Class D.—Won by Burman, Marquette-Buick; second, Bragg, Fiat; third, Hugh Harding, Stoddard-Dayton. Time, 7:23.54.

Twelve mile, stock chassis, Class B, division 3, 231 to 300 inches.—Won by Dawson, Marmon; second, Heineman, Marmon; third, Hugh Hughes, F. A. L. Time, 10:15.48.

Twenty mile free-for-all, Class D.—Won by Burman, Marquette-Buick; second, Bragg, Fiat; third, Harding, Stoddard-Dayton. Time, 15:18.25.

Fourteen mile stock chassis, Class B, division 4, 301 to 450 inches.—Won by Dawson, Marmon; second, Harroun, Marmon;

third, Charles Basle, Pope-Hartford. Time, 11:30.86.

Ten mile free-for-all, Class D, amateur.—Won by William Stoddard, Fiat; second, Bob Heitemeyer, Simplex; third, Jack Ruthenford, Stearns. Time, 7:46.60.

Ten mile free-for-all, Class D, handicap.—Won by Stanley Kepler, McFarlan; second, Burt Adams, McFarlan; third, Harding, Stoddard-Dayton; fourth, Basle, Pope-Hartford; fifth, Harry Cohen, E. M. F. Time, 7:22.45.

Two hundred mile stock chassis, Class B, division 5, 451 to 600 inches.—Won by Dawson, Marmon; second, Mulford, Lozier; third, Horan, Lozier; fourth, Gelnaw, F. A. L.; fifth, Hughes, F. A. L. Time, 2:51:12.73.

#### Monday, November 7.

Two hundred and fifty miles free-for-all, Class D.—Won by Horan, Lozier; second, Burman, Marquette-Buick; third, Matson, Simplex; fourth, Beardsley, Simplex; fifth, Mulford, Lozier; sixth, Fann, McFarlan. Time, 3:26:15.10.

#### Herrick Leads Race Across Desert.

Maintaining an average of nearly thirty miles an hour over roads as trying as have ever been selected for an automobile race, Harvey Herrick, driving a Kissel car, won the third annual desert race from Los Angeles, Cal., to Phoenix, Ariz., which was held under the auspices of the Maricopa Automobile Club on Saturday-Monday, November 5th and 7th. The route which is fully 480 miles long, lies across the worst part of the Arizona-South California desert, and this year had been rendered particularly difficult by a heavy rainfall on November 4th. Considering the fact that the cars had to run a great part of the way on low gear; had to run through sand more than a foot deep; had to cross trackless desert, charging through sage brush, fording creeks and rivers, the running time, 15 hours 44 minutes, of the winner is remarkable. Second place in the long grind went to Ralph Hamlin, in a Franklin, time, 16:16½, while Bert Dingley, in a Pope-Hartford accounted for third money, time 17:11. The winner received a handsome trophy and \$1,300 cash; second place brought a cash award of \$550, while the third man earned \$250. Last year the race was won by Nikrent in a Buick, in 19:14:07.

Besides the winners, eleven other cars lined up for the start as follows:

Abbott-Detroit, E. Speizel; Apperson, Harris Hanshue; Durocar, Charles Fuller Gates, W. M. Varney; Ford, Charles Harris; Knox, Joe Nikrent, Louis Nikrent; Maxwell, Clarence Smith; Mercer, C. H. Bigelow; Ohio, Ross Henwood; Parry, W. Horrine; Rambler, Wm. Sheriff; Velie, H. Stickney.

The cars were ferried across the Colorado river and remained parked in the Ehrenberg control on the east side of the river from the time of their arrival until Mon-

day morning, November 7th, being then checked out five minutes apart, in the same order as at the start.

#### Printer's Error Arouses Kansas City.

A missing comma has been known to render invalid a law, to upset a will and to cause Supreme Court sentences to be reversed by the Appellate Division, so it is not surprising that a mere printer's error has cost the automobile owners of Kansas City, Mo., a few thousand dollars this year. In the revised tax statutes for this year the license fee for automobiles is given as \$10, whereas in the preceding year it was but \$5. Injunction proceedings have been started by the Kansas City Automobile Club to restrain the city license inspector from continuing to charge \$10 per license, as he has been doing for the past few weeks. The mistake is solely a printer's error, the original wording of the ordinance distinctly stating \$5 as the fee; the license inspector, however, maintains that the provisions of the ordinance as they appear in the charter are his guide, and that until he is directed otherwise he must continue to charge \$10. The only way out of the quandary is for the council to repeal the clause as it stands and to substitute the \$5 clause.

#### Detroit's Two Motor Clubs Amalgamated.

The Wolverine Motor Club, which was formed in Detroit, Mich., but a few months ago, has swallowed the older Detroit Motor Club. The swallowing process was a friendly sort and came of mutual belief that one big club was better than two smaller ones. To further the amalgamation, Joseph S. Stringham, president of the D. M. C., and the other officials of that organization, voluntarily "abdicated" in favor of H. J. Porter, head of the Wolverine club, and his fellow officers. It is possible that a new name may be adopted, but for the present, the title Wolverine will be retained.

#### Oldfield as Valuable as Six Bryans.

The comparative value of State Fair attractions has been disclosed by the publication of the financial statement of the recent State Fair in Springfield, Ill. It shows that the Wright brothers received \$5,000 for the aeroplane flights, and Barney Oldfield \$3,000 for his automobile stunts, while William Jennings Bryan, perpetual presidential candidate, was paid but \$500 for exhibiting himself and making his voice heard.

#### Jury Declares Accident was Assault.

Although the victims of his carelessness in driving an automobile were not very seriously injured, W. Gordon Dyer, one of the wealthiest men of Norristown, Pa., was last week found guilty of "aggravated assault and battery" and sentenced to nine months' imprisonment and a fine of \$250. He ran into a carriage in which were seated Walter Smith and his wife, and upset it.

## CHICAGOANS TESTING ENDURANCE

**Twenty-Nine Starters in 1,000 Miles Undertaking—Three Clean Scores Spoiled on the Very First Day.**

Twenty-nine hardy "tourists" are tasting the joys of near-winter "touring" under the stiff restrictions set down in the American Automobile Association's book of rules under Grade 1, and which are being applied on a zig-zag route of about a thousand miles laid out in the beautiful state of Illinois. The affair is styled the 1,000 miles endurance run of the Chicago Motor Club, and presents the culmination of many weeks of careful advance work and persistent path-finding. The contest started from Chicago on Monday last, 7th inst., Moline being the first night's stopping place. The fifth day, Friday, will see such of the contestants as have been able to survive the weather back in Chicago. The roads that the drivers feared would be treacherous after the recent rains, were found, on the first day of the trip, hard and dusty, so that the remainder also are thought to be in good condition the whole distance, or nearly so.

As in the Glidden tour of this year, which was administered on the same plan, the drivers are barely allowed to touch their cars without penalization. Penalties are inflicted on the point basis for practically all adjustments or replacements saving only those relating to tires. A technical examination of the surviving machines will be held after the run and suitable additions made to the road penalizations, the lowest demerits serving to determine the winners in the two major classes.

The two classes in question are those made up of standard touring cars that are competing for the Stewart Speedometer trophy, and the roadsters and runabouts that are in line for the Van Sicklen cup. Three other trophies have been provided to add to the interest of the run, however. They are the Chicago Motor Club trophy, a team prize, to be awarded to the team of two or more cars of the same make having the best aggregate score; the Standard Oil cup, which will be awarded to the car showing the least fuel consumption for the entire trip; and the Branstetter tire trophy.

The latter is an entire novelty in this branch of sport and likely to bring out some very interesting facts concerning tire performance. Although time lost in tire repairs, and the nature of such work will not figure in the results of the main contest, they will be observed and recorded in the regular way for determining the tire manufacturer winning this trophy. Penalties will be inflicted on the basis of one point per minute per man for each tire stop and the winner will be determined by computing the average penalizations per tire of

each make entered. At least eight tires of a single make must be entered for the manufacturer to qualify for the prize, although makers having less than eight tires in the race may have the benefit of scoring in the regular way. At least 50 per cent. of the competing tires must be carried on rear wheels. Where tires are covered by protectors of a different make than that of the tire, they are ineligible, although their penalties will be recorded. No restrictions are placed upon types of tread, but the sizes must not be greater than those regularly fitted to the same cars.

Of the contenders who left the Van Dyke commercial garage, 2441 Cottage Grove avenue, at 6 o'clock on Monday morning, those in competition for the Stewart trophy were as follows:

George D. Brown, Abbott-Detroit; Don Watson, Haynes; J. C. Emery, Cunningham; R. J. Faas, Halladay; L. Williams, Haynes; George Padley, Henry; George McKercher, Imperial; Fred Cassell, Glide; A. M. Robbins, Abbott-Detroit; Walter Donnelly, Cino.

Those who entered the runabout and roadster class for the Van Sicklen trophy were:

C. F. Van Sicklen and C. S. Pope, Fal; W. E. F. Nutling, Midland; H. E. Halbert, Grout; L. B. Randall, Hupmobile; C. H. Van Dervoort, Moline; W. M. Parker, Lion; J. A. Wickes, Moline; W. Jones, Case; E. T. Wells, Imperial; J. H. Quinlan, Speedwell; C. Aument, Halladay; G. Monckmier, Staver; T. Duis, Staver; Lewis Strang, Case; H. A. Habernicht, Krit; Harvey Lincoln, Brush; L. Wagner, Haynes; E. A. Hearne, Hupmobile; E. G. Salisbury, Moline.

At the very outset "that old 'stock car' rule" came into play. Its administration resulted in the substitution of a 1910 Speedwell for the new model that had been entered; the reason for the substitution being that the manufacturers had neglected to file with the contest board of the A. A. A. the necessary certificate of specifications.

The roads proving far better than had been anticipated the entire parade was able to reach Rockford, the noon stop, ahead of its schedule, and Moline, the wind-up of the 193 miles run for the day, long before it had been expected. And it may be stated parenthetically that there were no arrests for breaking the speed limits, such restrictions apparently being swept aside for the nonce.

It does not follow, though, that all of the cars arrived trouble-free. Three of them, as a matter of fact, were penalized before the technical committee went to bed, and several others received slight injuries that probably will count against them when the final day of reckoning comes late in the week. Of the three that suffered early penalization, the Case (formerly Pierce-Racine), driven by Lewis Strang, was the most unfortunate. It lost 50 points for work done on the magneto. The Ab-

bott-Detroit, driven by G. D. Brown, was penalized three points for adjustments to a push-rod, while Leon Randall's Hupmobile lost one point in consequence of a carburettor adjustment. The Case and Hupmobile are in the Van Sicklen trophy class and the Abbott is a contender for the Stewart trophy.

In addition to these sufferers, the Glide, in the touring class, broke a spring, while the little Krit runabout got mixed up with a skittish horse and came off with a bent fender. Whether the car will be penalized much or little will be determined when it is discovered whether the Krit or the "critter" was to blame for the encounter. In addition to these incidents, the Speedwell car in which Referee Beecroft was riding had so much tire trouble that he was forced to quit it in favor of a Thomas six. This machine, by the way, is the car which is minus some of its vitals and which is making an enforced "high-gear" run, having been sent out from the factory for that purpose, and with the intermediate and low speed gears removed from the gearbox.

Tuesday's run was to Quincy, 167 miles, and the shortest run of the tour. The third day's journey lay between Quincy and Peoria, a distance of 205.5 miles, with the noon control at Springfield. The fourth day the tour will cover 215.9 miles between Peoria and Champaign, with 237.3 miles for the final day's run from Champaign to Chicago.

### Hupmobile Globe-Girdlers On Their Way.

To the tune of what was called the biggest automobile demonstration since the start of the Glidden tour of two years ago, the Hupp "expo-t expedition," which aims to extend a practical demonstration of Hupmobile efficiency clear around the world, and incidentally to place agencies, left Detroit on Thursday last, 3d inst. The expedition carried the best wishes of Mayor Breitmeyer and also a silk flag presented by Detroit's chief executive to be carried around the globe. The globe-girdling party, consisting of Joseph R. Drake, Thomas M. Hanlow and Tom Jones, representatives of the Hupp Motor Car Co., was escorted as far as Chicago by a guard of honor made up of 42 Hupmobile dealers from Wisconsin, Illinois and Indiana, some of whom covered as much as 1,000 miles in the journey to and from their homes. Chicago was reached at noon Sunday, the journey being continued the following day in company with the contestants on the Chicago Automobile Club's endurance run. The expedition is now well out in central Iowa and headed toward Denver. Thereafter the route will extend through Utah, Nevada and the famous Death Valley, to California. Honolulu, the Fiji islands and New Zealand will then be visited in order before Australia is reached, and the homeward journey begun on the other side of the world.



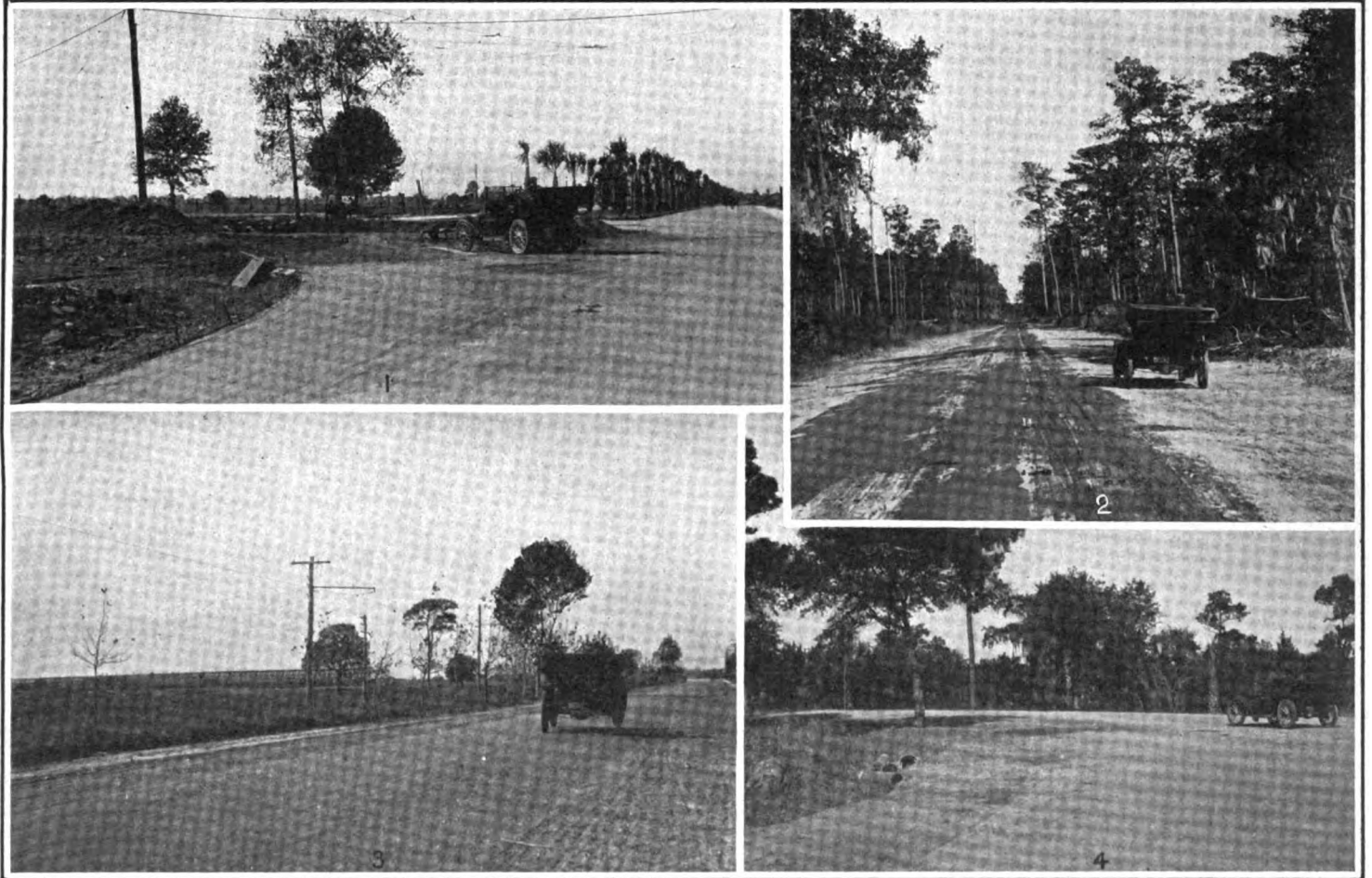
## FIFTEEN TO TRY FOR GRAND PRIZE

**Savannah Again Astir for Saturday's Big Race, Once a Spite Affair—Preparations Thorough and Complete.**

Friday and Saturday, 11th and 12th inst., will be Savannah's great days. In a measure their glorification also will extend to the entire State of Georgia as well, and hopes are entertained locally that large bodies of

and the circumstance that it will be contested over the Savannah course is almost as much the result of accident as was the fact that the race was first run and won over the same highways two years ago. At that time, as may, or may not, be recalled, the A. C. A. was seeking to suppress the American Automobile Association, which had had the temerity to assert its right to control all forms of automobile contests in this country. The result of the broil was that the Vanderbilt Cup race for the first time

This year, as everyone knows, it had been planned to run the Grand Prize race over the Long Island Motor Parkway course, shortly after the Vanderbilt contest. But popular sentiment, under the apt but misapplied guidance of a few eager press agents, made it appear that the holding of the race in the vicinity of New York would be neither an easy nor a pleasant undertaking. It was almost decided to abandon the affair when a faint and distant cry, "We want the automobile race" was



VIEWES OF THE GRAND PRIZE COURSE, E-M-F CAR IN FOREGROUND

1—DANGEROUS TURN INTO HOMESTRETCH, 2—ONE OF THE STRAIGHTAWAYS 3—NEAR THE HOMESTRETCH 4—A WIDE BANKED TURN

citizens from North, South and West, but particularly North, will find urgent need of testing the joys of southern hospitality. For Savannah again is standing sponsor for the Grand Prize contest, with preliminary bouts on the previous day by way of whetting interest in the principal event. The course has been fixed up until it is declared to be in perfect condition, a lot of well-known cars and well-known drivers, including a galaxy of foreign cracks, have been assembled on the scene, the grand coterie of officials and their camp followers, whose very presence serves to authenticate any big automobile number, have begun to arrive, and latch strings are dangling in anticipation of the gathering of the crowd.

This will be the second race for the Grand Prize of the Automobile Club of America.

became a national event, instead of an international one, and that the A. C. A. clubbed together and put up the Grand Prize for an international contest.

Just about that time the City of Savannah was painfully aware that it wanted something. Just what it wanted it did not exactly know until the A. C. A. was shouldered out of the management of the Vanderbilt. Then all Savannah cried aloud, "That's it, that's it! We want an automobile race." As a matter of fact a very successful stock car race had been held there in the early spring, and the sequel showed that the local officials possessed the power to handle a big contest, and particularly to police a big course, in such a way as to put many a more experienced management to shame.

heard. Savannah was on the job again. Ultimately Savannah got the race again, and if Savannah does as well by it as it did before—which is saying a great deal—there can be no question about its being a fine race. It at least is no longer a "spite race."

In the contest for the Grand Prize itself, which is a most elaborate gold and silver piece representing what someone has described as a "parrot perched on the edge of a soup-tureen," there will be at least 15 contenders, as follows:

Ralph DePalma, Felice Nazzaro, Louis Wagner, Fiat; Victor Hemery, David Bruce-Brown, Willie Haupt, Benz; Joe Dawson, Ray Harroun, Marmon; W. A. Roebling 2nd, Roebling-Planche; W. H. Sharp, Sharp; Harry F. Grant, Alco; Joe Matson, Simplex; and Robert Burman, Ar-

thur Chevrolet and Hugh Hughes, Marquette-Buick.

This year's course will be somewhat different from that used before. By cutting out the greater portion of what composed the old "short" course lying nearest the city and mainly on the White Bluff road, and eliminating the loop of the Thunderbolt road, the distance has been brought down from a little over 25 miles to 17.3. The Grand Prize contestants will cover this course 24 times, making a total distance of 415.2 miles, which is 13 miles more than was required of Louis Wagner when he won the initial race in 6 hours, 10 minutes, 31 $\frac{3}{4}$  seconds, or at an average of 65.1 miles an hour.

Although there will be but two foreign teams in the race to give it its necessary international flavor, and but three foreign drivers—Wagner, Nazzaro and Hemery—among the six teams, they are of the most skilled and experienced the foreign field affords, while their co-team mates are no mean contenders, if less renowned. Among the American drivers of American cars, Dawson and Harroun, the Marmon team, are almost certain to display "class," while Grant, in the Alco, winner of the Vanderbilt, may be relied upon for cool, heady driving of the sort that counts in a long race. Joe Matson, who is slated to drive the Simplex entry, is known as a bright and intelligent driver who should give a good account of himself, while the Burman-Chevrolet-Hughes combination is expected to develop its usual sky-rocket performance. In addition to the regular entries, there are other possibilities in the shape of two Pope-Hartfords, three Nationals, two Loziers, two Oldsmobiles, a Westcott, a Chadwick and a Stoddard-Dayton, that have been listed as "tentative" entries.

The preliminaries on Friday will be two in number, namely, the (nominally) international light car race for the Savannah trophy, and the contest for the Tiedeman trophy—also international. The Savannah cup race will be 15 laps, or 259.5 miles, and is open to cars of 231 to 300 cubic inches piston displacement. The other event will be of 10 laps duration, 173 miles, and open to cars of 161 to 230 cubic inches displacement. Both will be run simultaneously after the confusing fashion of the merry-go-round, the Tiedeman trophy race starting an hour after the Grand Prize.

For the Savannah race nine cars have been entered: Dawson and Heineman, Marmon; Pierce, Gelnow and Hughes, Fal; Roebeling, Mercer; Witt, E-M-F; and a second E-M-F and a Pullman, the drivers for which have not been named. One foreign car will contend the race for the Tiedeman trophy, namely, the Lancia, which William Knupper will drive. The other drivers that have been entered, and their cars are: William and Harry Endicott, Cole; Costello, Wright and Dorley, Maxwell.

## ELECTRICS MADE BEST SHOWING

### But There Were Honors for Others in Hearst's New York Truck Test— Tie in One Class.

After allowing ample time for the deliberations of the technical committee, the results of Mr. William Randolph Hearst's New York motor truck contest, October 28-29, were announced in last Sunday's issue of his newspaper. As the arrangement of the affair provided for a multiplicity of divisions, technically there were 14 winners in their classes. The fact that the final awards were made on the ton-mile costs of running supplies, however, enables a general distinction to be made between the awards in the different classes. To the 10,000 pound General Vehicle truck entered by the Brooklyn Edison Co., belongs the credit for the lowest score in the run. Its ton-mile cost for electric energy amounted to only four-tenths of a cent. In the distributing class for manufacturers' entries, division 1, the Brush and Hart-Kraft tied for the best result with 2.69 cents each. It may be taken as a fortunate circumstance that the conditions of the test were such as to enable the electrics to make a favorable showing; the average performance of the winning electrics being much better than that of the winning gasoline machines. Pending the finding of the referee upon the protests of three dissatisfied entrants, the awards are as follows:

#### MANUFACTURERS' SECTION.

##### Gasolene.

##### Transfer Classes.

	ton mile cost, cents.
Division 1—1,000 lbs. and less, Chase...	2.96
Division 2—1,001-3,000 lbs., Atterbury...	1.88
Division 3—3,001-5,000 lbs., Kelly.....	0.86
Division 4—5,001-8,000 lbs., Alden-Sampson .....	0.88
Division 5—10,000 lbs. and over, Morgan .....	0.97

##### Distributing Classes.

Division 1—1,000 lbs. and less, Brush...	2.69
Division 1—1,000 lbs. and less, Hart-Kraft .....	2.69
Division 2—1,001-3,000 lbs., Grabowsky.	1.75

##### Electric.

##### Transfer Classes.

Division 2—1,001 to 3,000 lbs., Lansden Co. ....	1.06
Division 1—1,000 lbs. and under, G. V. Co. ....	2.53

#### OWNERS' SECTION.

##### Gasolene.

Division 2—1,001 to 3,000 lbs., Autocar, John Wanamaker .....	1.00
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##### Electric.

Division 2—1,001 to 3,000 lbs., G. V. Co., John Meyer .....	1.08
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Division 3—3,001 to 5,000 lbs., G. V. Co., N. Y. Edison.....	0.84
Division 4—5,001 to 8,000 lbs., Commercial, John Wanamaker.....	0.48
Division 5—10,000 lbs. and over, G. V. Co., Brooklyn Edison.....	0.40

The ton-mile costs are based upon the total consumption of gasoline and oil, or of electrical energy, divided by the product of the distance covered and the useful load in each case. The scores are based on allowances of 15 and 50 cents per gallon, respectively, for gasoline and oil, and four cents per kilowatt hour for electricity.

### September's Striking Import Shrinkage.

Only 86 foreign automobiles were imported during the month of September last, in contrast to a total of 150, which were required during September, 1909. Even more striking is the shrinkage in the demand for components, which fell away from \$80,400 last year to \$34,175, exclusive of tires. The total value of cars and parts imported during the month was \$213,444 this year, as against \$372,211 last. France, still the largest contributor of cars for American consumption, disposed of but 40 machines in September, instead of 74, its complement one year ago. Italy was the next largest contributor, with 16 cars, instead of 44; and the United Kingdom third, with 12 instead of 14. During the nine months ending September 30th, the total value of cars and parts imported from abroad exhibited a less decided shrinkage; the respective totals being \$2,214,000 and \$2,874,785, the corresponding periods for this year and last.

### New Orleans Decides to Hold a Show.

In connection with its annual Mardi Gras speed carnival, the New Orleans Automobile Club will hold an automobile show next year, February 24-27 having been fixed as the dates for it. It will be under the management of Homer George, who will work in conjunction with a committee of local dealers comprising Ginder Abbott, G. Edwin Demock and Albert Aschaffenberg. The racing which will begin February 25, will occur on the fair grounds track; the show exhibits will be located in the big enclosed betting ring under the steel grandstand on the fair grounds.

### Motor Truck Equal to 32 Mules.

What a motor truck can do when experienced hands was proven, and daily is being proven, by the truck used at the Benjamin Harrison army post, at Indianapolis, Ind. This truck, an Overland, is doing the work formerly performed by eight four-mule teams, according to the report of Lieutenant-Colonel Thomas Cruse, chief quartermaster of the post. As is but natural, the up-keep expense of the one truck is considerably less than that of 32 mules, while the initial expense was nearly the same in both cases.

## Putting the Car Away for the Winter

The disgust of the untutored motorist who orders out his car in the Spring, expecting to find it in readiness for immediate use, and discovers instead, that it requires several days' work to put it into running shape, is a picturesque and rather classical attitude. This disappointment is particularly characteristic of the bucolic who has permitted his trusty car to become a very rusty one through long months of neglect in a cold and damp barn. But it is none the less characteristic of the metropolitan owner who has failed to take the proper precautions when laying aside his machine in the fall. The experience is neither a pleasant nor a necessary one. It may be avoided by the expenditure of a relatively small amount of time and labor in the fall, much of which may not seem essential and most of which comes under the general head of preventive measures.

While few motorists are inclined to complain of the expense of automobiling during the active season, it is frequently the case that the financial complement of the pastime weighs heavily upon the approach of the period when thin blood congeals and frosty air drives all but the most rugged indoors. Hence, in the winter, if ever, the motorists also becomes a dyed-in-the-wool economist. Apropos of which, witness a most excellent dodge that several of the "wise ones" have practiced in the past with good success.

In the small towns that lie between the greater centers of municipal civilization are many carriage makers of experience and skill, who are ambitious to increase their business during the "dull" season by whatever legitimate means presents itself. Not a few such carriage makers are skilled painters as well as able repairers and manufacturers of carriage work. So the shrewd automobilist, whose car will need a few new coats of paint, and maybe some little alteration before spring opens, has been known to seek out the lone carriage maker in the small town, with profitable results. In the end the job is done pretty nearly as well as the city body builder would do it, only much cheaper; while the country artisan, having plenty of storage room at command, is glad to take care of the machine over the winter, having plenty of time for the work, and either making no charge for storage or a figure so low as to be hardly more than nominal.

But close competition in the cities is working out a condition hardly less attractive to the private owner than is the country painter's desire to "get into" the automobile business in a quiet way. Ga-

rages are multiplying at a rate that rapidly is forcing down prices, while the warehouse people are beginning to make storage rates that are far below the competency of the average garage to meet—at least under present conditions. Hence, the motorist, who is able to supervise the laying up of his machine in such a way as to ensure its being in fairly good condition when wanted again, is able to "save money" either way.

The real problem is not that of storage, but of taking care of the mechanism so that it can be put into service again at a minimum of expense and with the least possible delay. With this in mind the machine should be overhauled with the double object of protecting all parts from the effects of possible rust or corrosion and of determining exactly what work will be necessary in getting the machine into commission again. The latter idea involves deciding upon the details of any body improvements or modifications that may be desired, the replacement of worn and broken parts and the laying in of supplies and new equipment. While properly belonging to the spring overhauling, the annual inventory, if taken in the fall, permits orders to be given long in advance and enables the motorist to be sure of having the work done properly and without delay; also, in many instances, it enables him to gain some advantage in price, as well as in quality of workmanship, through avoiding the rush period.

As far as the mechanical side of the laying-up question is concerned, the general principle to be followed is, as already indicated, to protect all parts from the ill effects of dampness and varying temperatures. This means, first, that the car should be treated to some sort of protective coating. As far as the details of the laying-up operation are concerned, they may be as simple or as elaborate as the owner may desire.

Some motorists, who are finical in the extreme, have been known to have their machines entirely disassembled, the parts scoured and slushed, and carefully sorted and laid away in boxes and on shelves against the spring assembling period. On the other hand, others have been known just to roll their cars into a quiet corner on the upper floor of some garage and to let them stay there until wanted, without experiencing any serious difficulties.

In general, however, it pays to give the car a certain amount of attention along certain general lines which may be indicated in outline. The exact details may be

left to circumstances and, to a large extent, to the forehandedness of the owner himself. For it must be borne in mind that every stroke of work done in cleaning and preventing the accumulation of rust saves probably double the amount of work when the car is taken out of storage.

In preparing a car to be laid away it is important in the first place to see that it is given a thorough cleaning, all grease and mud stains being removed from the varnish and the surfaces being thoroughly dried. This will serve to forefend against the weathering effects of the period of disuse. Before the car leaves the wash-rack for the last time, all the drain cocks in the cooling system should be opened and the hose turned into the radiator filler cap while the engine is running. This will serve completely to flush out the radiator, the jackets and all passages, removing from them any particles of sediment or scale and rust that may be loose.

After the water flows from the drains perfectly clear the hose may be shut off and the engine run for several minutes more until absolutely no more water issues from the outlet. In doing this, care must be exercised to avoid overheating, the object being to exhaust the water from all pockets, low bends and kinks where it might accumulate and freeze, if the temperature happened to drop, and also to prevent rusting through leaving the passages damp.

When the car has been removed from the stand, it is well to drain all tanks, if for no other reason than for the sake of lessening the fire risk. The crank case should be thoroughly washed out, a squirt-gun and kerosene or gasolene being used for the purpose. All oil-feeds should be cleaned by the same method, the treatment also being applied to the upper portion of the cylinders and the valve ports. While this is being done the crank shaft should be spun occasionally in order to ensure the thorough cleaning of all parts and the removal of dirty and carbonized oil. Afterward all bright metal surfaces may be covered either with heavy oil or grease, or with the regular lubricant, to keep out the air. It is a good plan also to make sure that the combustion chamber walls and the unmachined ports are covered with kerosene as a means of loosening carbon and preventing rust. The external finished parts of the motor, such as valve stems, operating connections, magneto and pump shafts, and the like, should be wiped clean and coated either with heavy grease, which may be melted and applied to the cold metal with a brush,

or with a regular slushing compound, such as may be obtained from a dealer in lubricants.

In respect to the ignition auxiliaries, it is not a half bad idea to detach the magnet and send it to the maker or his agent, with instructions that it be thoroughly overhauled and returned in the spring; this will allow ample time for the work to be done properly and ensure its being done right, while preserving the instrument from damage or possible theft during the winter. The steel and iron parts of the timer, if battery ignition is used, must be treated to a cleaning and oiling process. All wire insulation should be wiped free of oil, to prevent it from rotting. The vibrator blades and screws should be wiped off with a greasy rag, also, with the object of preventing corrosion.

If storage batteries are employed, it is good economy to give them some attention, rather than merely to neglect them. Exact adherence to the principles of accumulator maintenance would require that the cells be flushed out, completely charged, and the plates removed, cleaned and dried after certain prescribed rules; but in most cases it will be sufficient to charge, flush out and lay away the cells without disassembling them, coating the terminals with wax to prevent the acid salts from "creeping."

To facilitate getting the machine into running condition when it is wanted again, it is a good plan to give the carburetter a thorough cleaning, not omitting to rid the strainers of the separator and the extra air inlets of moisture, as well as all dust and dirt. It is well to clean out the feed piping also, and, if the pressure feeding system is used, the pressure side of the system as well.

The transmission mechanism, throughout, should be treated to a thorough cleaning with kerosene or gasoline and all bright surfaces coated with rust-preventing grease. The differential and shaft housings of shaft-driven cars require this attention. In the case of chain-driven chassis, the chains should be removed, boiled in lye, and afterward suspended in hot tallow until they are heated through.

All braking and operating mechanism should be gone over in a similar manner, one particular trouble spot being the telescopic shafts that actuate the sliding sets in many selective change gear arrangements. Such long bearings, and all that are in any way obscure, require to be thoroughly cleaned and lubricated.

The muffler, exhaust manifolds and piping, the brake rods and all unfinished metal parts, including the wheel rims, require to be scoured free of rust and coated with asphaltum paint or some other rust preventive. If the car is to go under the painter's hands before it is used again, it may be sufficient to smear such parts with grease. Ordinarily, however, it is a good plan to see that they are well painted at the time

of laying away the car, and it is just as well to extend the treatment to the upper surfaces of the running boards also.

On the question of tires, some little difference of opinion exists. By some authorities it is held that no harm can be done, if the tubes are properly inflated, for them to bear the full weight of the car for an indefinite period. By others it is maintained that the car should be raised on trestles and the tubes partially deflated, to take the internal stresses out of the casings. By still others it is thought that the tires should be removed altogether.

For several reasons this would seem to be the best plan, after all. In the first place, it ensures the thorough cleaning of the rim surfaces, and prevents the creeping of rust, which otherwise might tend to cause deterioration of the beads of the casings. It also ensures a thorough examination of the tire equipment, so that it may be known what new material will be required for the following season. More important still, it permits the casings to be dried out, cleaned of any possible oil stains that might cause deterioration, and coated with powdered chalk. Otherwise it is not unlikely that a small amount of moisture might remain, even as a result of the last washing, as a matter of fact, and that the canvas probably would rot before spring.

The top should be opened, cleaned and a good grade of dressing rubbed thoroughly into the grain of the leather to prevent it from stiffening. Similar treatment should be given to the upholstery, if of leather. All brass and other plated trimmings should be covered with polish and left in that condition.

During the process, it is very important that the parts be inspected minutely for flaws or for signs of extreme wear. If this is done and careful note made of the result, it follows that when the car is required again it can be sent to the repair shop without the formality of being looked over. Furthermore—and with certain makes of car this is a valid consideration—it enables a requisition for necessary replacements to be lodged far enough in advance of the real need to permit delivery in ample time. On old cars, where it may be necessary to have new parts made to order, of course this is very important.

#### To Cure Carburetters of Strangling.

To cure his carburetter of an unpleasant tendency to "gag" or strangle when the throttle is suddenly opened, a foreign motorist has resorted to the plan of attaching a considerable length of tubing to the extra air intake. The difficulty, which is not uncommonly found with many different types of carburetter, is attributed to the more ready response of the air to the increased suction caused by the sudden opening of the throttle than that of the gasoline; the latter being restrained by the

greater inertia of the fuel and the friction of the jet. The idea of the improvement, in short, is to establish sufficient extra resistance to the flow of air to counterbalance the natural difference in inertia, thus effecting a braking influence on it at the instant of sudden change in the suction. Mechanically the improvement is effected by brazing a flanged brass tube over the air inlet and slipping a length of stiff rubber tubing over the collar thus formed. The tube is then coiled in such a way as to avoid kinking, and attached to the frame in any convenient manner.

#### House Wiring for Automobile Illumination.

With the increased use of electric lights on automobiles the question of wiring becomes important. Cases have been known in which the wiring was so carelessly done that a short-circuit has set the machine on fire, while in other instances defect in the wiring can be remedied only by tearing out the upholstery. In installing the electric lighting system on the new Franklin cars, as the H. H. Franklin Manufacturing Co., Syracuse, N. Y., is at some pains to point out, the underwriters' rules for house wiring have been followed. All wires are laid in conduits, while suitable junction boxes are placed in accessible locations where they can be got at in case of need. The burning out of any wire simply means the disabling of a single section of the system, while in locating any faults it is possible to test out the system by these sections in a perfectly simple manner.

#### One Way of Warming Feet in Winter.

As an antidote for cold feet when driving in winter one driver of experience recommends the dodge of removing the toe board, which in most cars is inclined and separate from the flooring. This permits a draught of warm air to be blown back from the motor and prevents the numbing of the feet even when no special foot coverings are worn. In cases where there is a tendency for cold air to be blown back through the radiator, it is sometimes necessary, according to this authority, to mount a deflector shield of light sheet metal to drive the air down into the sod pan.

#### One Sign of Careless Polishing.

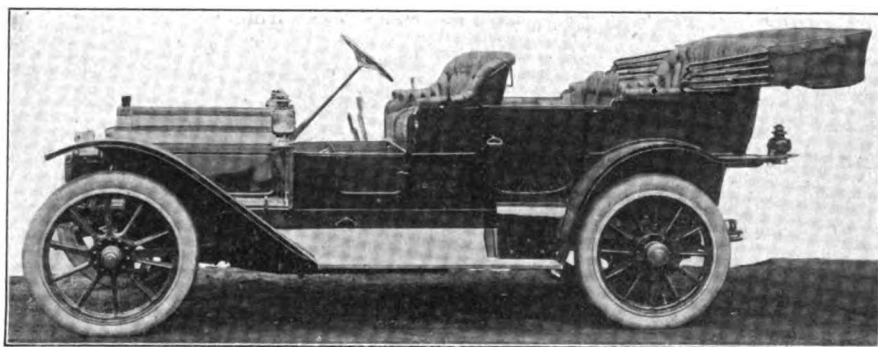
It is a sign of careless work on the part of the floor man if a car is permitted to leave the garage with smooches of metal polish showing on the varnished surfaces immediately adjoining the brasswork. Incidentally, it is important that care be observed in polishing the trimmings of a machine to see that none of the cleaning compound works over on adjoining parts which are painted. As metal-polishes generally are both abrasive and acid or alkaline in their properties, they are practically certain to spoil the luster of any varnished surfaces with which they come in contact.



**GARFORDS BEARING OWN NAME**

**Pioneers Who Occupied Peculiar Position  
Present Their Own Production—Com-  
prises Three Striking Models.**

While the Garford car, manufactured by the Garford Company, Elyria, Ohio, is in a sense new in name, nevertheless the chassis upon which this car is founded is a tried and proven one, having been the foundation of several cars of proud repute. It follows that the cars which now bear the name Garford have no fame or future to carve for themselves. They are known qualities and their quality is beyond ques-



THE GARFORD 40 HORSEPOWER TOURING CAR

tion. They are being made in three models, a seven passenger touring car, a five passenger touring car, and a limousine, all of which are built upon identical chassis, and are very light in weight. The larger touring model has low front doors for protection against dust and wind.

The Garford, Model G-8, is equipped with a 40 horsepower motor of 4 cylinders, having a bore of  $4\frac{3}{4}$  inches and a stroke of  $5\frac{1}{4}$  inches. The cylinders are cast in pairs with offset intake and exhaust valves on opposite sides, making a "T" head motor of symmetrical and well balanced appearance. The crank shaft is a heat treated drop forging and runs in white brass bearings. Drop forged connecting rods are held in the pistons by wrist pins, case hardened and ground. The cams and cam shafts are made of high carbon steel, all bearing and cam surfaces being hardened and ground. The timing gears, helical cut, are noiseless. Aluminum is used as the metal for the two castings of the crank-case, the crank shaft being suspended from the upper half. Easy access may be gained by the removal of the lower half of the case without disturbing the engine itself in any way.

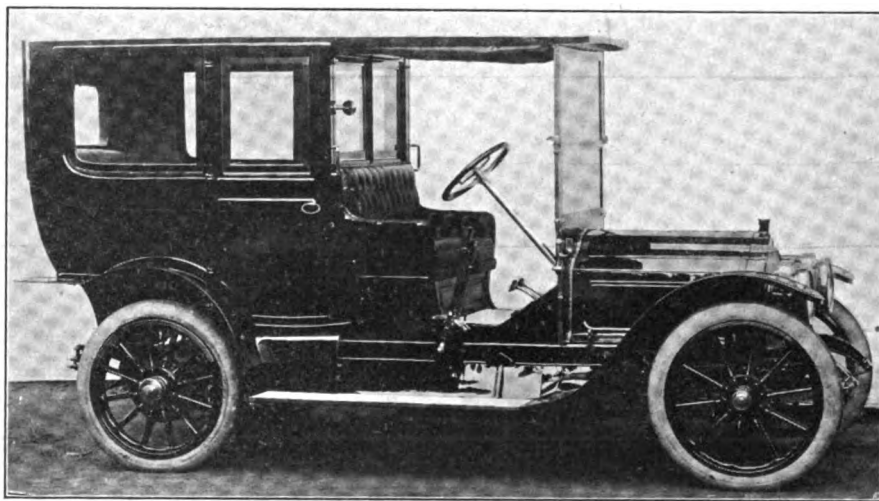
A positive feed mechanical oiler is used to accomplish lubrication. Oiling of the main bearings is done by splash from the case. Oil collecting rings, fed from the main bearings, lubricate the crank pin bearings. The cam shaft is lubricated by splash.

Ignition is by a low tension Bosch magneto with magnetic spark plugs, in combination with Bosch seat-starting device. A great objection to the make and break system was the small moving parts which have been done away with by the use of the magnetic plugs. The low tension system has also its waterproof advantages.

Cooling is effected by the use of a centrifugal pump, which circulates the water into the cylinders near the exhaust parts and out from the top, together with a radiator and an adjustable belt fan.

The clutch is of very light cast aluminum, leather-faced cone with cork inserts and flat springs. A feature of the clutch is that it may be lifted out without disturbing any other unit by simply removing a

few screws. A double universal joint is mounted between the clutch and transmission in a dust-proof housing.



THE GARFORD LIMOUSINE EQUIPMENT

The transmission is of the selective sliding gear type and the different speeds can be selected at will. There are four speeds forward and reverse, the direct drive being on third speed. The gear case is a one piece aluminum casting with a cover. The rear axle is of the full floating type.

Two internal expanding and two external contracting brakes comprise this part of the equipment. They are all fabric lined and adjustable. The front axle is an I-beam section, drop forged with integral spring

seats. All models have 36 by 4 inch tires in front and 36 x  $4\frac{1}{2}$  in the rear, but the wheelbase varies in the different models from 118 to 123 inches. Semi-elliptic springs are used both in the front and rear.

The driving position is on the right hand side. Spark and throttle levers are mounted upon the steering wheel. Pedals controlling the clutch and service brakes operate through the floor boards, while the gear shifting and emergency levers are located conveniently at the side in the conventional way.

**Pennsylvania as an Automobile Producer.**

According to the annual report of Chief John L. Rockey of the Pennsylvania Bureau of Industrial Statistics, which just has been made public, the seven automobile manufacturing establishments in that state report an investment in plants and machinery of \$3,147,455, which is an increase of \$505,948, as compared with the year 1908. The production for the past year was \$4,129,882, an increase of \$1,648,256. During the year 1,282 automobiles were turned out of the Pennsylvania factories, as compared with 831 the previous year. There was employed during the year an average of 1,579 wage earners, an increase of 775. These earned an aggregate of \$1,000,755 in wages, an increase of \$480,151. The average yearly wage was \$626.65 and the daily wage \$2.06. As managers and office help 158 persons were employed at salaries aggregating \$148,081. Of the wage earners 1,522

were Americans, 37 foreigners and three negroes. The average value produced per employe was \$2,592.29.

**Spokane Taxicab Companies Consolidate.**

The Spokane Taxicab Co. and the Taxicab Motor Co. of Spokane, Wash., have been consolidated under the style of the first named concern, whose capital stock has been increased to \$200,000. George E. Riegall, of the Taxicab Motor Co., will manage the enlarged enterprise.

## PAY TRIBUTE TO OLD EMPLOYER

**Workmen in Stoddard-Dayton Factory Present Bronze Tablet to Retiring President—What it Symbolizes.**

As a striking and unexpected testimonial to his many years of faithful and kindly service as an employer, the 2,200 or more employes of the Dayton Motor Car Co., Dayton, O., recently presented John W. Stoddard, retiring president of the company, with a bronze memorial tablet. The tablet, which is here illustrated, is about three feet

"Presented Oct., 1910, to John W. Stoddard by the factory employes of the Dayton Motor Car Company in appreciation of his long years as a considerate employer and in recognition of those sterling qualities which have made him admired by all men."

It is noteworthy that the tribute was an entire surprise to the officers and office employes of the company, as well as to Mr. Stoddard, Senior, himself, coming entirely from the men of the factory.

### Suspensions Aroused by Gasolene Permit.

Most people wait until a thing becomes an established fact, before they apply for

## VIRGIN HICKORY DISAPPEARING

**Federal Government Issues a Warning But Crisis is Far Removed—Extent of Automobile Trade's Demand.**

According to a bulletin which has been issued by the Department of Agriculture, at Washington, by Forest Assistant Anton T. Boison and J. A. Newlin, engineer in timber tests, the automobile industry annually consumes something like 3,350,000 board feet of hickory in the manufacture of spokes and rims. This represents about one per cent. of the annual cut of hickory, which, in 1908, was estimated at 335,000,000 board feet, including all necessary waste. The purpose of the bulletin is to point out the rapid diminution in the supply of the wood and to emphasize the probable effect of a shortage upon industries that are dependent upon it, as a result of the increase in its cost.

"Virgin hickory, which has hitherto furnished the chief supply, is disappearing rapidly, and there are no foreign sources which can be drawn upon when the home supplies are exhausted," it is explained. It is further stated that, "unless some entirely new material is found to take the place of hickory, and this seems quite improbable, it is only a question of time when the prices will advance sufficiently to place hickory on an equal footing with chestnut, poplar and other faster-growing species; even now it is practically on an even footing with white oak and white ash, the other trees most important for toughness and strength used for purposes similar to those for which hickory is used." The crisis is indicated as being some years off, but the continued exhaustion of the supply is likely to cause a continual increase in the price of the wood. Naturally, the vehicle industry as a whole, which uses about 65 per cent. of the entire output, will be the first to feel the effects.

### Cranked Car with Reverse Gear in Mesh.

Another of the many accidents caused by cranking the engine with the gear shifting lever in the wrong position occurred on Sunday last, on 60th street, New York, and only the fact that the steering wheel had been jammed over to the right saved the three year old boy occupant of the car from death or injury. The chauffeur had left the gear shift lever in the reverse position, and when he started to crank the car the latter backed up so rapidly that it took the man at least ten seconds to catch it. During those seconds the car backed onto the sidewalk and crashed into the window of a florist's shop, creating a general havoc therein. Damage exceeding \$500 was caused, but no one was injured.



MEMORIAL TABLET IN HONOR OF JOHN W. STODDARD

in length and mounted in a handsome satin lined mahogany case. Embodied in the design, at the left, is the date "1872," when Mr. Stoddard first started in the implement business and on the right, "1910," to commemorate his retirement from the automobile business which has occupied the attention of the company so successfully during recent years. In the lower left and right corners, respectively, the hay rake and cultivator and the modern motor car symbolize the products of the industry, while at either side of the bust at the top are representations of the implements with which the subject has been employed during various periods in his career. The central figure of the design is a relief bust of Mr. Stoddard, and below it is the following inscription:

an injunction—provided the proposed object does not meet with their approval—but James J. Phelan, Roxbury, Mass., has varied the procedure by asking the court for an injunction against Mary A. and Oscar L. Lomasney, restraining them from building a garage on their own land, which adjoins Phelan's property. Not that the Lomasneys had expressed any intention of building one, or had mentioned their desire to do so; they had simply asked the city council for a permit to store petroleum and gasolene on their premises, and Phelan jumped to the conclusion they intended to build a garage. As restrictions were placed upon the property some years ago forbidding the erection of a garage, it is thought that the injunction will be granted by the courts.

## MANY MODELS FOR MANY NEEDS

**Jackson Company Offers Striking Variety in Extensive Line—Convertible Closed-Fronts a Universal Feature.**

There is no sameness in the Jackson line for 1911. Not only is it more extensive than heretofore, but in respect to body designs, mechanical features and prices there is no small variety. Its makers, the Jackson Automobile Co. of Jackson, Mich., are not among those who limit themselves to one chassis on which they superimpose dif-

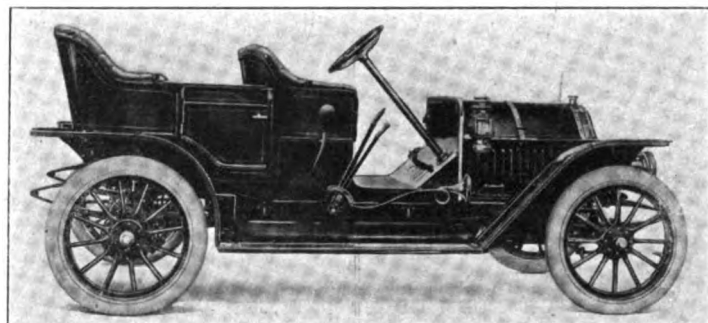
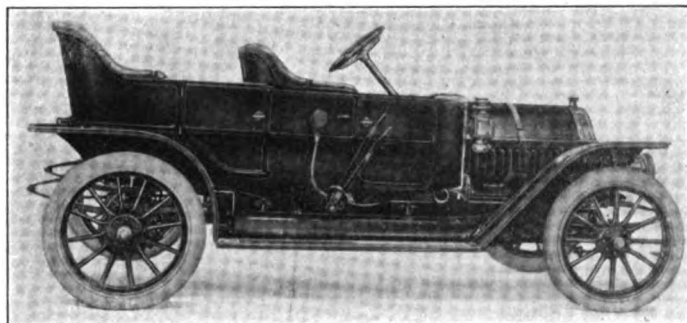
ferent types of bodies; the Jackson people

employ no less than five distinct chassis and one of the most striking new features of the 1911 line is the convertible torpedo body. Every Jackson touring model can be transformed into the closed-front type, as removable front doors complete with sills and panels are provided for this purpose. The advantages of this construction lie in the adaptability of the car for various

uses; for city travel or business purposes the standard touring car with free entrance is likely to be most preferable, while for fall or winter use or extended touring the front doors with their protection from dust and wind are to be desired. The closed-front bodies have a straight line effect from the tonneau to the dash, which is made more pronounced by the use of hardwood strips along the tops of both the front and tonneau doors and panels. These strips accentuate the unity and symmetry of the body, and, with the front doors, give to

son productions, as a result of the consolidation of the two concerns between which a strong financial relationship always existed. The Fuller models will include the two cylinder shaft driven touring car and the surrey of the modified motor buggy type having solid tires and a two cylinder motor. The surrey has high clearance and 36-inch wheels. It lists at \$850.

The four cylinder motor employed in Models "38," "35," and "25" is of the conventional "L" type, with single cam shaft, first introduced in the Jackson product in Model "H" of last year. The chassis of Models "38" and "35" are identical. Their motors, also four cylinders, are 4 by 4



THE JACKSON CONVERTIBLE BODY SHOWN ON THE "30 CT" CHASSIS WITH AND WITHOUT FRONT DOORS

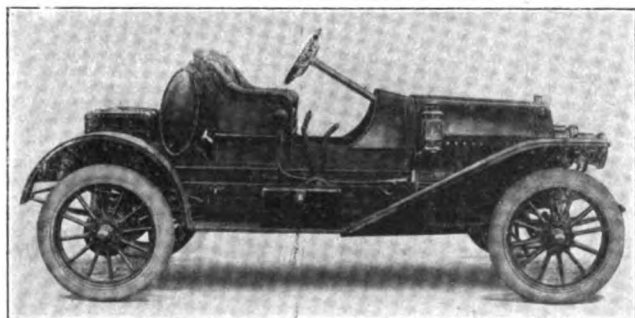
fering types of bodies; the Jackson people employ no less than five distinct chassis and one of the most striking new features of the 1911 line is the convertible torpedo body. Every Jackson touring model can be transformed into the closed-front type, as removable front doors complete with sills and panels are provided for this purpose. The advantages of this construction lie in the adaptability of the car for various

"38," a full torpedo with front doors and metal scuttle dash, and finished in a rich cream color, making an exceedingly attractive car. The drive is from the left side with the gear shifting lever in the center of the floor boards and the service brake and clutch operated by the same pedal. A ratchet pedal operates the emergency brakes. This torpedo has 32-inch wheels and a wheel base of 110 inches.

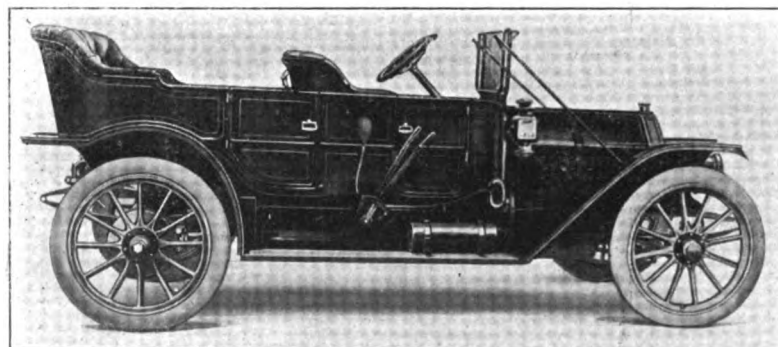
inches, cast in pairs, while the motor in the roadster, Model "25," has a bore of  $3\frac{3}{4}$  inches by  $4\frac{1}{4}$  inch stroke. All valves are arranged on the left side and operated by a single cam shaft.

Lubrication is accomplished by the splash system, the oil being pumped from the oil reservoir through the motor and back to the reservoir.

Low tension magnetos, with batteries in



THE JACKSON MODEL "25" ROADSTER



MODEL "51" WITH CONVERTIBLE CLOSED-FRONT

Model "35" differs from Model "38" only in body design and driving position, while Model "30" has not only a different body but another type of motor. Both are five passenger cars and may be had with detachable tonneaus. Model "25" is the Jackson roadster, a two passenger vehicle distinguished by an oval gasoline tank and a trunk in the rear. The wheels of this roadster are 32 inch and the car has a wheel base of 105 inches. The Fuller cars, formerly produced by the Fuller company, now are listed as Jack-

son productions, as a result of the consolidation of the two concerns between which a strong financial relationship always existed. The Fuller models will include the two cylinder shaft driven touring car and the surrey of the modified motor buggy type having solid tires and a two cylinder motor. The surrey has high clearance and 36-inch wheels. It lists at \$850.

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reserve for starting, are supplied as the ignition equipment on all models. Cooling is effected by means of the thermo-syphon system of circulation and a six blade belt driven fan. Aside from the freedom of mechanical trouble by the use of this system, the Jackson company points out that its advantage lies in the constant working temperature it secures for the motor. There is no loss of efficiency from over-cooling as the circulation is governed by the temperature, and the useless dissipation of valuable heat is avoided.

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The clutch used in Models "30" and "35" is of the leather faced cone type, with engage springs to allow for the necessary slippage when the load is being taken up. A multiple disc clutch running in oil is used in Models "51," "41," "38" and "25." The strength of the clutch is compounded through a system of toggles, so that the pressure on the plates when the clutch is fully applied, is enough to make slipping impossible.

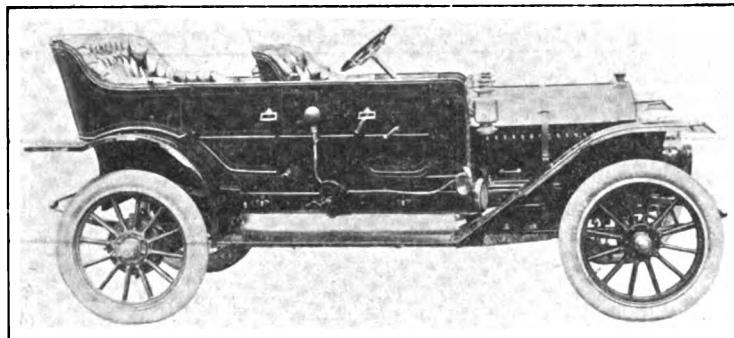
The motors in Models "51," "41" and "30" are the type of engine which has been

which gives the full elliptic spring its greatest advantage. Cross members support the motor in Models "51," "41," and "30," at the front and rear, and it is fastened to them by round collars, inside of which it is free to rotate slightly to allow for any twist of the frame. In Models "38," "35" and "25," containing the "L" type power plant, a new method of motor support has been introduced this year, a cast iron piece attached to the forward end of the cylinders, extending on either side to the sides of the frame meeting the latter at points

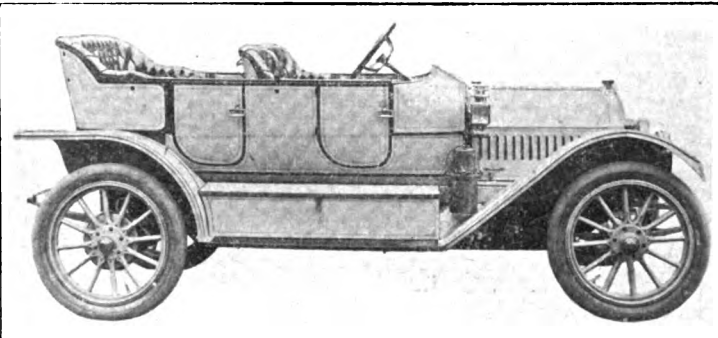
located at the right side are the levers for gear shifting and the operation of emergency brakes. A single unit coil is placed conveniently on the dash, together with a sight feed oil indicator.

#### To Check Noises Caused by Bodies.

With the object of checking all noises arising from the working of the body of the car, a British builder has adopted the plan of rendering the outer frame of the dash entirely independent of the chassis and integral with the body, and of cushion-



JACKSON MODEL "41" CLOSED-FRONT



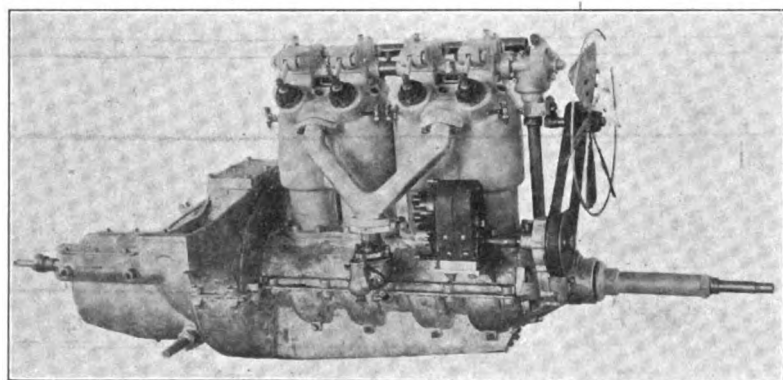
JACKSON MODEL "33" TORPEDO STYLE

used so successful in Jackson cars for several years past, with valves inclined at angles of 45 degrees in the head and with an overhead cam shaft driven by a vertical shaft and bevel gear. With the valves so placed in the head the intake and exhaust gases pass straight through the valves and valve ports without interference and the exhaust goes out freely and completely, clearing the cylinder of all burnt gas. The cams, rocker arms and shaft are enclosed

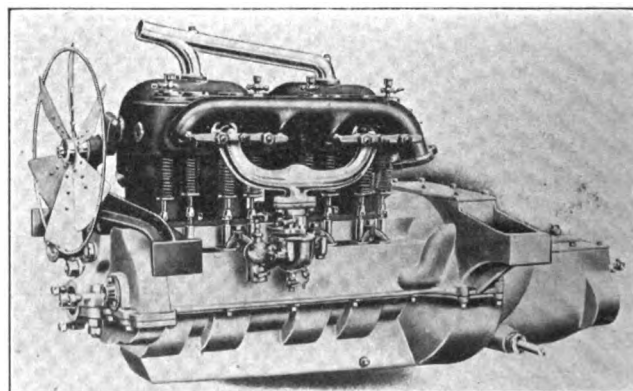
where the weight is evenly distributed.

The front axle is of the I-beam type, with tie rods behind and steering connections above. The transmission is incorporated in the power plant, insuring perfect alignment at all times. It is of the selective type, allowing three speeds ahead and one reverse. Roller bearings support the rear axle, with ball thrust bearings on each side of the differential. The roller bearing driving pinions are fitted with ball

ing the entire forward portion of the complete coachwork structure upon rubber cushions. For some years this particular maker has attached his bodies to the rear of the chassis by means of a hinged joint, so that they may be raised at the front end when repairs are to be made. By the new arrangement the metal tenons or resting blocks, which guide the fore part into place and restrain it from side motion, drop into sockets in the bottom of which are



JACKSON MODEL "41" POWER PLANT



THE POWER PLANT OF MODEL "38"

in dustproof housings. Cooling, lubrication and ignition are accomplished in the same manner and by the same means as in the above described "L" type of motor.

Throughout the Jackson line the unit type of power plant is used. All moving parts are completely housed, thoroughly protected from dust and dirt, and lubricated from within. The frames of Models "51," "41," "35" and "30" are dropped, bringing the weight closer to the ground, but still allowing the free and unrestricted action

bearings to take the thrust from the bevel gears.

All of the 1911 models are driven from the right side, except the full torpedo, Model "38." The steering gear is of the worm and gear type, and upon the steering wheel are mounted the throttle and spark control levers. The clutch and service brake are operated by separate pedals working through the toe-board and an accelerator pedal is interconnected with the throttle lever on the wheel. Conveniently

rubber cushions. The lubricator sight-feed, switches and other fittings that usually are mounted on the dash, are carried on a false dash, or mounting board that is fastened to independent uprights erected on the main frame.

#### Electric Horns Coming from Racine.

The Standard Electric Co., Racine, Wis., is about to add automobile horns to its productions. They will be of the electric variety.



**KISSEL HAS A "WESTERN SPECIAL"**

**It is Built to Stand Rough Work—The  
Remainder of the Line is Improved  
and Enlarged.**

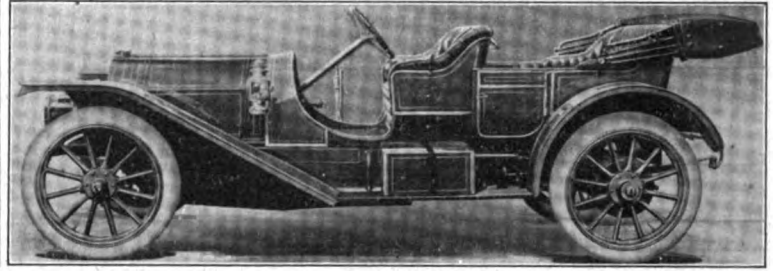
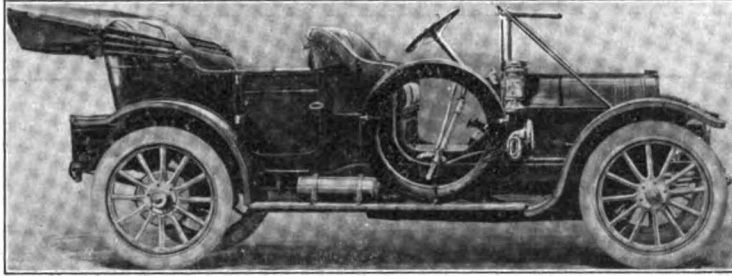
Apart from the three ton truck, which already has been exploited, the 1911 line of the Kissel Motor Car Co., Hartford, Wis., will include another new comer, the "Western Special," which, as its designation

according to the type of body employed. Its wheel base is 132 inches, and it is supplied, together with Model D 11, in touring car, small tonneau, coupé or limousine forms. All models may be equipped with front doors, if so desired.

The bodies are made of metal over wooden frames, and designed to eliminate as many joints as possible. The door frames are made with a single bending instead of sections. The dash board, deck and door strips are solid mahogany with piano finish.

the other side. The cylinders are of the familiar "L" type, cast in pairs; in the 30 horsepower motor they are  $4\frac{1}{4}$  by  $4\frac{1}{4}$  inches, in the 50 horsepower motor,  $4\frac{7}{8}$  by  $4\frac{3}{4}$  inches, in the 60 horsepower motor,  $4\frac{1}{2}$  by  $4\frac{3}{4}$  inches.

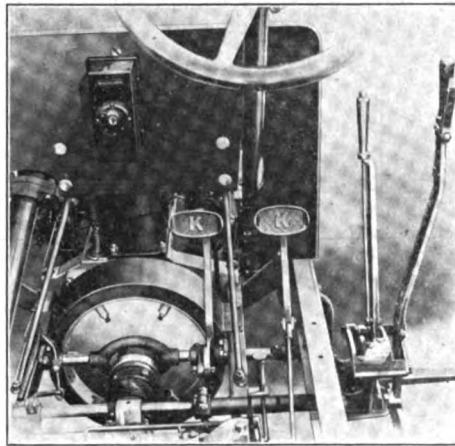
Lubrication is accomplished by a self-contained oiling system, which has a reservoir in the lower part of the oil basin, and a gear pump bolted to one end pumps oil through all tubes to the different sections. The oil level can be raised or lowered to



THE 4-CYLINDER KISSEL CAR "D 11" WITH STANDARD TOURING AND SMALL TONNEAU BODIES

implies, is designed particularly for use in the Western country. The older models differ from the 1910 productions chiefly in that the wheel base of all has been materially increased; the frames have been given a double drop, lowering the car and lessening the leverage of side thrusts, and the brakes changed on all models but L. D. 11, from the double internal expanding, to internal expanding and external contracting.

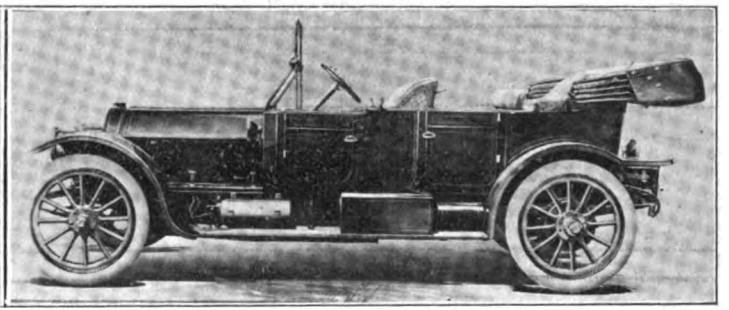
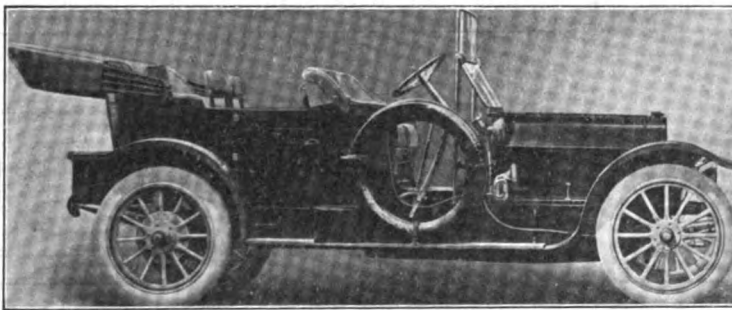
The "Western Special," the addition to the line, is designed for rough country use, and is given more road clearance, has extra heavy wheels and only a single drop frame, adapting it for use over deep rutted or unimproved roads, sharp turns and hills characteristic of a large portion of Western country. The motor has four cylinders,



KISSEL CONTROL MECHANISM

meet the various needs, as when the motor is required to run without smoking, long hill work or at high speed. The adjustment is secured by a brass tube in the oil basin connecting with the overflow outlet. A lever attached to one side of the basin is pressed into this tube, regulating the flow. This lever is attached to the adjusting rod, enabling the driver to lower or raise the oil level as he sees fit at any time. A gauge is provided to insure proper oiling at all times.

All models are equipped with dual ignition, employing either Remy magneto and dry cells, or the Bosch dual system. Cooling is effected by means of a centrifugal pump and a square tube radiator. A belt driven, ball bearing fan increases the cool-



THE NEW "F 11" 6-CYLINDER CAR IN STANDARD TOURING AND CLOSED-FRONT FORMS

develops 50 horsepower and the wheel base is 120 inches. It is to be had with either touring car or small tonneau bodies and lists at \$2,000.

Model L. D. 11 is a four cylinder, 30 horsepower car with 116 inch wheel base, and supplied with touring car, small tonneau or coupé bodies. The 50 horsepower, 4 cylinder Model D 11, has a wheel base of 124 inches. The six cylinder member of the family, F 11, lists at \$2,500 to \$3,700,

Between the running board and the frame is a metal apron. The curved fenders are attached to the body by irons and braces, in brackets riveted to the side bars, making their removal easy. A sheet metal sod pan under the chassis serves to protect the machinery.

The motor remains the same in style and principle, as that in the previous models; the magneto and pumps are on one side, and all the valves easily accessible on

ing efficiency by forced draft. The clutch is of the cone type, leather-faced with adjustable springs beneath the leather to eliminate any jerk while the clutch is being engaged. Except in Model L. D. 11, which has three speeds, direct drive is on the third speed of the four speed selective transmission and the fourth speed is geared up 25 per cent. Heat treated chrome-vanadium steel replaces the carbon steel used heretofore. The rear axle remains the

standard full floating type, with tubing pressed into the housing.

The front axle is an I-beam section drop forging, with the spindles lowered and made heavier. The steering arm is placed above the axle and the rod in the rear. This arrangement gives protection against accidents caused by hitting an obstacle.

The braking system is changed on all models except L. D. 11. The new brakes are internal and external with a 14 x 4 inch face, instead of the double internal as used on 1910 cars and retained on L. D. 11. All front springs are semi-elliptic, and the rear are three-quarter elliptic with scroll ends, supported by an extension of the rear of the frame.

The driving position of all models is on the right side. Upon the steering wheel are mounted the throttle and spark control levers; the adjustable clutch and service brake pedal operate through the floorboards and the emergency brake lever is at the right side, together with the gear shifting lever. The shifting mechanism remains the same in all models except on L. D. 11, in which it will be placed outside the frame instead of inside as in the other 1911 models. An accelerator pedal is interconnected with the throttle control lever to facilitate traffic work.

#### Overland Factory Operating 24 Hours.

George W. Bennett, sales manager for the Willys-Overland Co., was in New York late last week after another visit to the Western country. There he says automobile optimism of the contagious sort still rules and is reflected by the dealers in the size of their orders. The Overland factory in Toledo, Bennett states, has felt the effects of this optimism to such an extent that it is being operated 24 hours per day. During the month of October it shipped exactly 1,002 cars, 66 of them being sent out on one day.

#### To Introduce Taxicabs in Ceylon.

The Indian Motor Taxicab Company (Limited), operators of taxicabs in Bombay and Calcutta, are shortly to begin operations in Ceylon. Consul Wm. C. Magelsen writes that a representative of the company is making the preliminary arrangements and offices have been opened at No. 4, Darley Stores, Darley Road, Colombo. It is believed that taxicabs will become very popular there. The concern intends to begin business by placing 60 cars on hire. The charge per mile is to be 50 cents Ceylon currency (\$0.16).

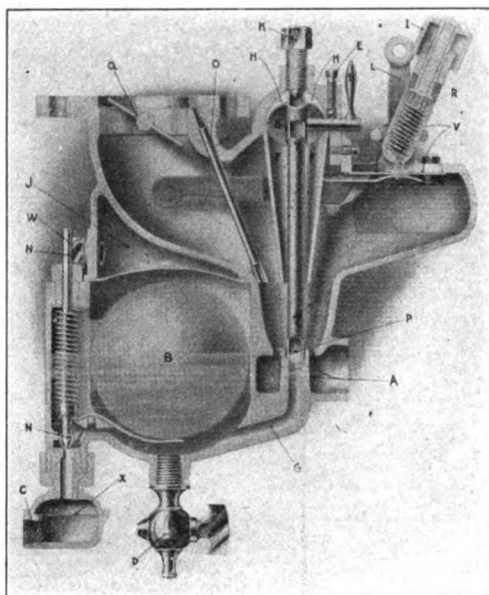
#### Locomobile to Enter Commercial Field.

After long experimentation and test, the Locomobile Co. of America is about to place its first truck on the market. It will be made in three and four ton sizes, will mount a 60 horsepower engine, and have double chain drive and four-speed selective gear.

## RADICAL FORM OF CARBURETTER

Of the Multiple Jet Type, it Differs Greatly From It—How It Lessens the Vacuum Required.

It is obvious that the efficiency of a carburetter must depend to some extent upon the readiness of its response to the suction of the motor—to how great an extent depends upon its ability to deliver a uniform and perfect mixture under varying conditions of load and throttle opening. It is claimed by the Carter Carburetter Co., St. Louis, Mo., which just has placed on the market a new and radical device of this



CARTER CARBURETTER CONSTRUCTION

class, that with the average carburetter, the piston of a well-designed motor must travel from 25 to 50 per cent. of its travel in order to create the necessary two to four pounds of vacuum which must be obtained before the mixture will be generated properly.

In the case of the new Carter carburetter, on the other hand, but 12 ounces of vacuum are required in order to raise the mixture, so that the piston must travel not more than 10 per cent. of its suction stroke in order to cause the delivery of the mixture to the cylinder. In consequence, as is claimed, from 15 to 40 per cent. more mixture is delivered to the cylinder in the course of the suction stroke than otherwise would be possible.

In support of these radical claims the Carter company offers its radical form of carburetter, in which the initial mixture is formed in much the ordinary way, while the additional increment necessary at medium and high speeds is secured by an arrangement of multiple jets that come into play automatically as the suction increases. Among other novel points about the device

is a spherical float which acts upon the needle valve through the intermediary of a single and very simple lever arrangement which is positive in its action.

The construction of the carburetter is shown in the accompanying illustration in which the principal jet is indicated at A and the float at B, the needle valve at N and the settling and strainer chamber at X, adjacent to the fuel inlet C. The chief point of originality about the system lies in the vertical, multiple-jet fuel tube, however. The purpose and action of this is best explained by tracing out the operation of the device itself.

When a partial vacuum is developed in the mixing chamber, due to the motion of the pistons, air is drawn in at A and up through an annular opening surrounding the base of the tube T, thus causing a mixture to be formed. This tube is formed of case-hardened steel tubing and is located in the center of the funnel-shaped air-tube F. It is closed at the top and held to its seat by means of the cap-screw K. The various jets consist of small holes drilled in its wall in a helical row from top to bottom. The main jet, P, is located at the base of the tube and just above the normal fuel level.

As the fuel issues from the main jet under the influence of the initial suction it strikes the surrounding walls of the tube seat and is given a whirling motion. The mixture thus formed is sufficient for all low speeds.

When the throttle is opened air also begins to enter at the high-speed air inlet, H. At the same time the fuel rises in the tube and begins to issue from one or more of the spirally arranged jets. As it does so it is met by the flow of air which is driven downward against the mixture rising from the main jet, the two thus being blended forcibly and impregnated with fuel vapor. At very high speeds, a supplementary air supply is delivered through the auxiliary air inlet valve V.

To provide against "strangling" when running at very low speeds or when opening the throttle suddenly, a so-called anti-strangling tube, O, is provided. This tube, or duct, leads from the lower mixing chamber to a point in the inlet pipe above the main throttle and, therefore, is never closed. Hence when the throttle is shut, it serves to draw the small amount of gas, required to keep the engine turning, around the principal mixing chamber, and at sufficiently high velocity to prevent it from becoming separated into its components. The mixing chamber in this way is kept dry and free from imperfectly mingled gas until such time as the throttle again is opened. When this is done the motor is not supplied with a few charges of over-rich gas, as frequently is the case, but with a perfectly dry and uniform mixture, so that it is enabled to accelerate smoothly and without gagging.

**MOTOR TRUCK FOR ROAD BUILDING**

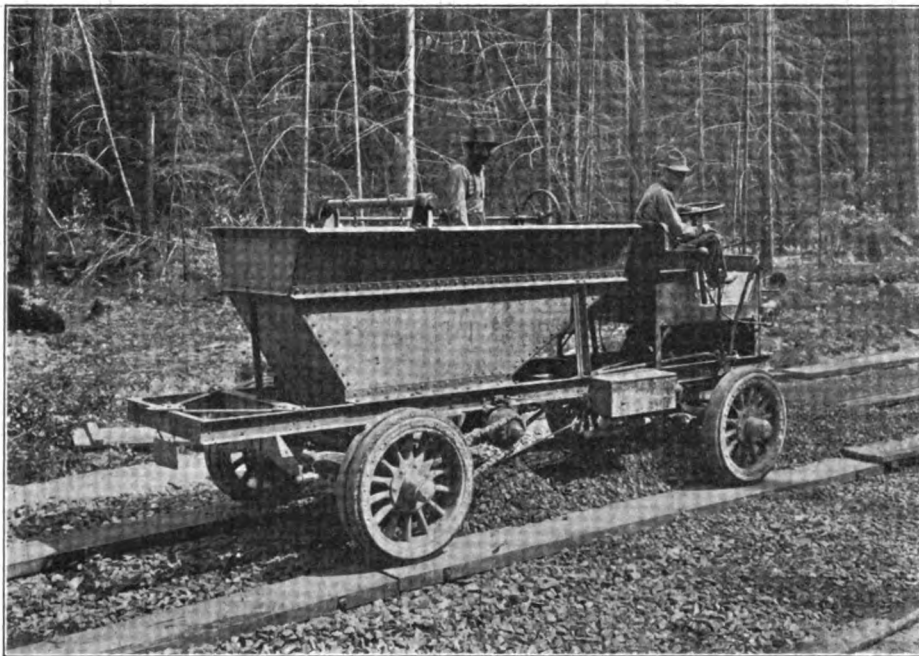
**Almost Revolutionary Demonstration Now in Progress in Washington State—Does Work of 36 Horses.**

Something almost revolutionary in the way of road building is being demonstrated out West by enterprising contractors who are constructing a part of the State road which eventually will connect Seattle and Spokane. A three-ton Gramm truck, on which was built a special steel hopper, spreads gravel on the surface of the road through gates at the bottom, operated by a wheel at the driver's seat. This truck takes

per cubic yard being 2,500 pounds. The motor truck, however, carries three and two-fifths cubic yards each trip, the load being about 8,500 pounds, which with the 1,500 pound steel body makes a total weight of 10,000 pounds. This is a  $66\frac{2}{3}$  per cent. overload over the normal capacity of the truck. About 75 cubic yards are hauled daily by this truck, employing two drivers and making 22 round trips, which is 18 times the daily capacity of one team and driver.

By the modern method of hauling this rock, the daily expense is \$12, whereas by the old method of employing teams the expense would be \$90 a day.

According to the Gramm people, the daily travel of the truck is 110 miles. At this



A "THREE-TON" GRAMM THAT HAULS 10,000 POUNDS

the place of horse-drawn dump wagons.

The crushed rock, hauled to the bunkers by the railroad, is dumped from hopper bottom cars into specially constructed bunkers. A sunken roadway permits the truck to receive its load by simply opening the gates. The load is then hauled to the road under construction, where, as shown by the accompanying illustration, stringers are laid upon loose rock and the truck backed away on these as the load is dropped, in this way spreading it over the desired amount of surface.

The rock is handled entirely by machinery from the time it is crushed, automatically dumped into freight cars, hauled to the contractor's bunkers, loaded into the truck and deposited on the surface of the road.

The hauling distance from the bunkers to the road work is two and one-half miles, all up grade. With one team and driver only, four cubic yards of rock could be hauled in a day, one cubic yard to a trip, and at an expense of \$5 a day to the contractor, the approximate weight of the rock

rate over 3,000 miles would be traveled in thirty working days, and the truck would carry 5,610,000 pounds of rock at a total expense including wages, fuel, upkeep and depreciation, of \$350. The same amount of work if done by teams would cost fully \$2,500.

**Cost Him \$5 to Ride on the Box.**

Ignoring the fact that there is a law prohibiting taxicab chauffeurs from giving their friends a "lift" or allowing anyone else to ride beside them on the box of their cabs without the consent of the fare, James Graham, one day this week, jumped aboard a New York taxicab in which was a police sergeant. That officer ordered the chauffeur to drive to a point where a detective was awaiting such catches and Graham was arrested. When arraigned before the magistrate he found that his disregard for the law had cost him \$5. The ordinance is one designed to prevent hold-ups of passengers by "strong arm" pals of disreputable or crooked drivers.

**RUSSIA WANTS MOTOR STAGE LINE**

**Offers a Subsidy and Opportunity is Open to Americans—Estimates of Equipment and Capital Required.**

That Russia in some things is not quite so backward as some people believe is the case is made evident by the announcement that the Russian government is to establish an automobile route from the port of Novorossisk and the final point of the Vladikavkas railroad to Soukhoume, a distance of approximately 375 miles.

As the undertaking could not bring immediate financial benefit to a transportation company organizing such a service on its own initiative and with its own resources, without obtaining substantial aid from the government, the project includes a yearly subsidy by the government of \$36,000, and the terms of the concession are as follows: The concessionaire is obliged to make six trips a week from both points for transferring the mails, but has the right to transport passengers and baggage. The mails are not heavy—300 to 350 pounds daily. The passengers pay 6 kopecks per verst (3 cents per two-thirds of a mile).

Consul-General Snodgrass, stationed at Moscow, states that it has been found from experience that automobiles carrying from three to five passengers will average from 45 to 60 kopecks (22½ to 30 cents) per verst.

"On 70 versts of the route," he writes, "the automobile communication is already organized; five cars are in service, and the undertaker for this part of the country receives \$10,000 yearly subsidy from the government. The remaining 330 versts (220 miles) are to be organized without delay. Except the line from Tuapse to the north by a side road leading to the Maikop oil fields, and the Armavir-Tuapse railroad now in the course of construction, this transport method for mail is necessary for at least twelve years. Along the route of the proposed railroad mail will have to be carried and passengers transported by automobiles for at least three years.

"The estimates of the capital required for the automobile route are as follows:

15 light automobiles, at \$2,250 each.	\$33,750
8 automobile omnibuses, at \$4,000 each	32,000
10 baggage cars, at \$3,500 each	35,000
Reserve capital, tires, parts, etc.	12,500
Construction of houses and workshops	50,000
Active capital	12,500

Total capital required	\$175,000
The undertakers have already expended	37,500
The undertakers have deposited with the Government	12,500

Total requirements.....\$225,750

"The concessionaires thus figure that the

\$36,000 a year subsidy from the Government alone aggregates 14 per cent. upon the capital expended. It is thought that the income from the transportation of passengers and their baggage will cover the expense of exploitation, and it is expected that there will be more than is required for the sinking fund from the income of the transport line to the oil fields described hereinbefore. The concessionaires figure that in three years the income from the side line alone will be more than sufficient to cover the entire capital expenditure of the enterprise. The number of persons traveling on these lines is conservatively estimated at 20,000 a year.

"For the want of capital this concession is for sale, and on account of the government subsidy of \$36,000 yearly, it may appeal to American capitalists. The contract with the Government exists for twelve years. Communications addressed to the American Consulate at Moscow will be handed to the concessionaires."

#### Substitute for Garage Elevator.

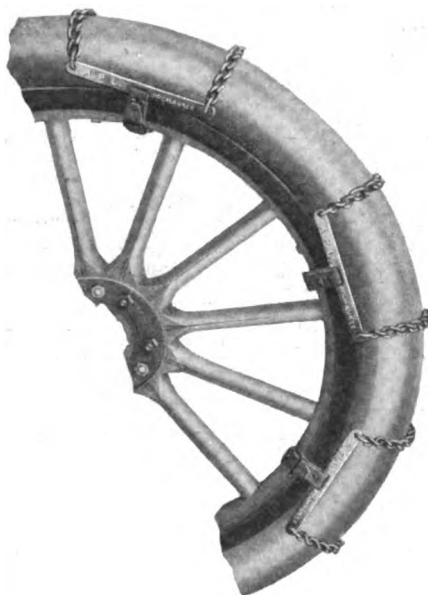
In a two-story automobile establishment in Brooklyn, N. Y., where a regular elevator is out of the question on account of the floor space it would occupy, a unique lifting device has been substituted which does the required work, does not lessen the amount of floor space available, and leaves no open shaft liable for accidents. Over the driveway at the front of the building there is a door opening from the second floor. A platform, built the width of this door, extends about twelve feet inside and far enough outside to touch the ground at an angle of about 40 degrees. The sill of the door forms the fulcrum upon which this platform operates, somewhat after the fashion of a seesaw. The outer end is raised and lowered by an ordinary fall and tackle attached on upright poles on each side.

The automobile to be taken to the second floor is brought to the lowered end of the platform, where a rope or chain is hitched to the front axle, the car hauled up the incline by means of a windlass, and as it passes over the pivotal point of the platform the weight of the car gradually brings the upper end to the floor in a horizontal position. The car may then be rolled onto the floor. To take a car down, it is placed on the upper end of the platform, hitched by rope to the windlass, and, as the platform is lowered at the outer end by the tackle, the car is allowed to roll gradually down.

#### Tire Chains of the Unit Type.

The tire chains which have been added to the productions of the Avery Portable Lighting Co., of Milwaukee, Wis., constitute a considerable departure from the usual. As the accompanying illustration shows, the Avery chain is not of the continuous variety, but is made in individual units. Each sec-

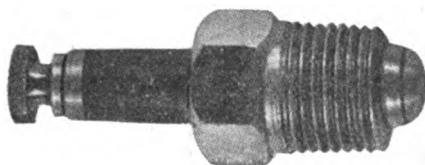
tion is composed of two pieces of chain which lie over the tire and are attached to side bars. A leather strap secures it to the rim, which manner of fastening, it is claimed, takes the strain from the tires.



Six units go on each wheel, but less may be used if so desired, as for instance, when applying them to a wheel without jacking up the car. The chains list at \$4.50 per set.

#### Spark Plug that Lacks Points.

While most manufacturers lay stress on the "points" of their productions, the Wolverine Motor Specialties Co., which recently was organized in Detroit, Mich., to manufacture the Detroit spark plug, is making the most of the paradox that one of the "strong points" of its plug is that it has no points at all. The absence of points that bend or break or overheat renders it proof against most of the misuse and abuse that would put many other plugs "out of business." Instead of depending upon two



small points to carry sufficient current to ignite the gas, the Detroit, plug, as shown by the accompanying illustration, has a sparking channel all the way around the plug, making the spark jump always the same without adjustment. Current from the battery or magneto is carried by a steel stud or core, amply protected by oil proofing enamel and sheet mica from the top of the plug to the bottom, and here it jumps back across a ring of mica, then another and finally reaches the hexagon and the cylinder. It is claimed that the fire across these channels keeps them open and free from carbon even though the whole bottom of the plug may be furred with soot, which is pointed to as another good feature.

The Detroit plug also employs a special preparation of enamel mica instead of porcelain insulation.

#### When the Chain Drive Becomes Worn.

When the driving mechanism of chain-driven cars has worn to the extent of becoming unpleasantly noisy, the standard remedy is to turn the chains "inside out," not for the sake of bringing new metal in contact with the sprockets, which with the roller type of chain commonly employed for the purpose, is manifestly impossible, but for the sake of bringing new rivet surfaces into action. When this experiment no longer is effective, and when the sprockets have been ground down until they are altogether too large for the chain, it is well to see whether a different sized chain, having large rollers, cannot be employed. If this can be done, it will be found that the life of the drive will be considerably increased.

#### Comic Opera Device to Save Life.

Two Dutchmen have come to the rescue of the luckless pedestrian who risks his life and limbs whenever he crosses the street in front of an approaching car. They have invented a device, which was exhibited in Vienna, the other day, the purpose of which is to catch the unfortunate "human obstacle" to automobile progress, holding him—or her—firmly upright by taking a firm, metallic grasp of the lower limbs. The arrangement is designed for attachment to the front of a car and is intended to work automatically, regardless of whether the victim is desirous of being saved, or is suicidally inclined.

#### The Conquering Career of the Taxicab.

With the reports of the activity of the automobile trade in all parts of the world transmitted through the consular service and exemplified in the exports and imports statistics of the past months, attention has been called to the spread of the taxicab idea. These modern vehicles are a recent venture in the islands of Sicily and Ceylon, and they have been operated for some time in Bombay and Calcutta. There is hardly any city of importance in the whole world to which they have not penetrated.

#### New York Gets Biggest Animal Ambulance.

Mrs. Russell Sage recently presented to the New York Society for the Prevention of Cruelty to Animals, the largest motor ambulance ever built for the transportation of animals. It has three decks and will carry 200 dogs and cats.

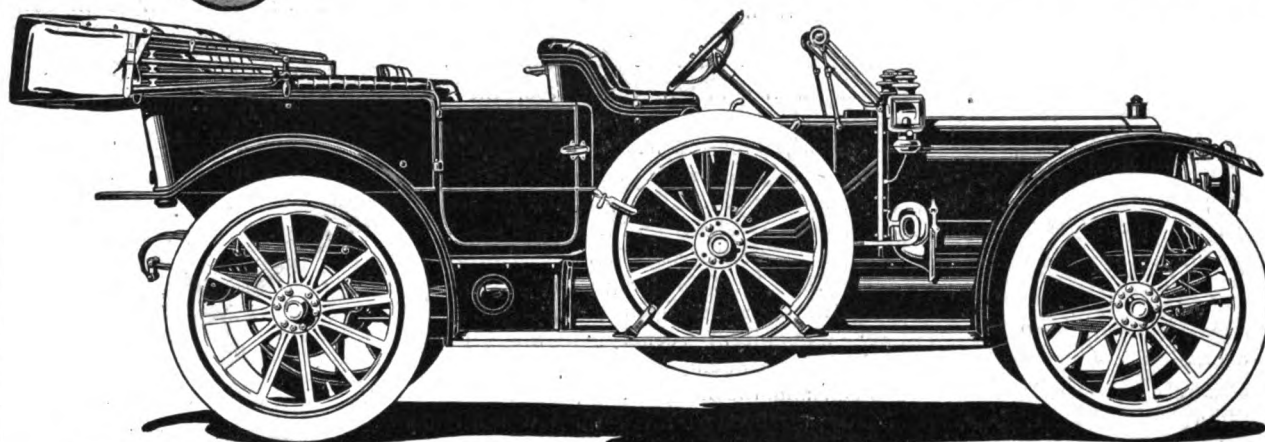
#### Wells Once More Heads Louisville Dealers.

At the annual meeting of the Louisville (Ky.) Automobile Dealers' Association last week Prince Wells was re-elected president. E. G. Reimers was chosen vice-president and Hubert Levy, secretary and treasurer.



# Rambler

## 1911 Cars Now Ready



Rambler  
Sixty-five

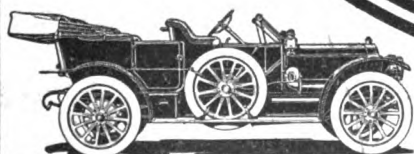
**T**HE 1911 Rambler is now ready and orders are being taken for early deliveries of all styles. The line includes landaulets, coupes, limousines, town cars, roadsters, toy tonneaus and five and seven-passenger touring cars with detachable fore doors. Details and construction alike for all: two sizes, forty-five and thirty-four horsepower. Forty-inch wheels on all seven-passenger open cars, thirty-six-inch wheels on all others. Seven-eighths elliptic springs and shock absorbers produce gratifying comfort. The offset crank shaft and straight-line drive enable you to travel through sand and up grades on high gear as slowly as ten miles an hour. That there is no need to rush the hard pulls is one of the charms of driving a Rambler.

*You may have a copy of the special  
number of the Rambler Magazine  
if you make request immediately*

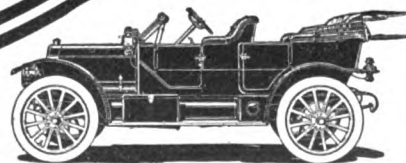
**The Thomas B. Jeffery Company**

Main Office and Factory, Kenosha, Wisconsin  
Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco

Rambler  
Sixty-four



Rambler  
Sixty-three



**MISHAP, NOT MURDER, SAYS JURY**

**New York's Celebrated "Millionaire Motorist" Case Results in Acquittal—Testimony Shatters Sensational Reports.**

Indicted for murder in the first degree, Edward T. Rosenheimer, whose car on the night of August 14 last, apparently "side-swiped" a light buggy containing a man and two young women, wrecking it and killing one of the girls, was acquitted by a New York jury on Thursday last, 3d inst., after 25 minutes deliberation. Because Rosenheimer and his two companions did not stop at the time of the accident and following the fire-eating performances of one of New York's always picturesque coroners, the sensational press made Rosenheimer, a man of family and refinement, appear almost a human monster, and the case became a celebrated one. Rosenheimer, although he had to mortgage his home to pay the expenses of his trial and who remained several weeks in jail because of inability to give the \$50,000 bail imposed, always being referred to as the "millionaire automobilist."

The testimony brought out that the buggy displayed no light, that the night was a dark one, that the buggy was overcrowded, that it was being driven at an angle in the middle of a wide road, Pelham Parkway, bordered by trees and not too well lighted, and that it was struck on the right side—it was going in the same direction as the automobile—that in seeking to avoid a collision, Rosenheimer had placed his foot on the accelerator instead of on the clutch pedal and that although the buggy was wrecked, the horse and harness practically were uninjured. Rosenheimer testified that he did not stop—for which even motorists were inclined to blame him—because one of his companions had looked back and seeing the horse standing had told him that everything was all right. Later in the night he returned to the scene in a cab and was unable to obtain information regarding an accident. He was arrested on his return to his home, a chauffeur who had secured his license number and who testified that he had overtaken and notified Rosenheimer that a girl had been killed, having given the information to the police. Before the case was given to the jury, the court struck out the indictments for first and second degree murder and for first degree manslaughter, leaving only manslaughter in the second degree to be considered. The jury regarded the accident as an unavoidable mishap.

Since Rosenheimer's acquittal, E. S. Cornell, the paid and over-busy secretary of the so-called National Highway Protective Society, has been denouncing the verdict as "a miscarriage of justice," and some of

those concerned are seeking to have Rosenheimer re-arrested for violating the provisions of the Callan automobile law affecting those who run away after an accident. Meanwhile any person or any society who desires to "protect" the highways will find overloaded buggies, minus lights, on Pelham Parkway and almost every other outlying thoroughfare, merely by visiting them after nightfall.

**Booming a Pacific Coast Trunk Road.**

Out on the Pacific Coast, too, the increase in automobile travel has sharpened the keenness for tourists' trade to such an extent that the Pacific Highway Association has been formed to promote the construction of a road from the British Columbia line to the Mexican border. It would pierce the states of Oregon, Washington and California and open up some of the most magnificent scenery in the world. Meetings are being held to further the project, and the line of the proposed road already has been "located" in Washington. This "grand trunk highway," as it is styled, is designed to connect with one which the Canadian government is building from Calgary to Vancouver and which British Columbia expects to extend to the American line near Blaine, Wash.

**Dead Bulls Charge a China Shop.**

The proverbial bull in a china shop was a gentle zephyr when compared with five tons of dressed beef which went on a rampage about midnight on Thursday of last week and broke into the crockery store of B. Aronowitz, on Second avenue, near 39th street, New York City. The "lifeless" remains of bulls and near-bulls proved considerably more lively than could reasonably be expected of "dead meat" and smashed the show window and enough crockery to total \$300 damages. Skidding of a heavy truck of the United Dressed Beef Co. loaded with meat caused the trouble, and the jar of the collision with the house was so heavy as to throw all the dwellers into a panic. It took three powerful trucks to pull the beef-truck out of the wreckage.

**Railway Embankment Cause of Suit.**

Railroads have been sued many a time because of grade crossings' accidents, but Roy Coppersmith, of Grinnell, Ia., has the distinction of being one of the first men to demand damages for sliding off a railroad embankment. He has sued the Ft. Dodge, Des Moines & Southern railway for \$25,000, claiming the death of his parents to have been due to the extreme steepness of the embankment, and the fact that the edge was overgrown with weeds to such an extent as to conceal the danger. The accident occurred a year ago, while Mr. and Mrs. Coppersmith were riding in an automobile; the car slipping down a high, weed-covered embankment, overturned and killed the occupants.

**QUEER SCHOOL FOR CHAUFFEURS**

**Exists to Teach Drivers the Location of London's Streets—Former "Cabbies" in Role of Instructors.**

It seems like an irony of fate that the "superannuated" cab drivers of London should in any way help their successors on the taxicabs to pass examinations as to the topography of London, but such has come to be the case. London streets are a nightmare to the uninitiated; the similarity of streets, and the frequency with which popular names occur in various quarters of the city, make driving a cab in London about one of the hardest jobs imaginable.

There are, for instance, something like eighteen King streets and twenty Queen streets and Queen's roads in London, and the unfortunate candidates are asked to give the shortest cuts from, say, the Bank of England to some obscure street in a remote suburb, bearing the same name as a score of others. It is this very trying examination which has completely floored those young drivers who have never driven hansoms or "four-wheelers."

One result of their tribulations has been the establishment of the "London School." The instructors are seasoned veterans of the old cab rank, and they guarantee to tell young drivers of taxicabs more about London in two weeks than they can acquire from any amount of examinations. The school has been packed with would-be drivers and has met with great success.

The "pupils" are not only made to study maps of London and answer questions, but for a small fee they are driven round the lesser known parts of the East End and the suburbs. It is stated that one of the larger taxicab companies financed this "school of knowledge."

**Where it is Legal to Exclude Automobiles.**

The so-called Bar Harbor automobile exclusion bill, passed by the legislature of the state of Maine last year for the purpose of barring automobiles and other motor vehicles from Bar Harbor, has been declared constitutional by Justice William P. Whitehouse of the Supreme Court of that state. The decision was rendered on November 3d, and Bar Harbor will continue to get along without motor cars. The bill had the support of many New York, Boston and Philadelphia people—one of them a former president of the A. A. A.—who have summer homes at Bar Harbor, but was opposed by many permanent residents.

The Elbert County Automobile Association has been formed at Elberton, Ga., with the following officers: President, Dr. A. C. Smith; vice-president, Dr. D. N. Thompson; secretary and treasurer, T. B. Fisher.

? ? ? ? ? ? ?

Do you or could you make accessories or parts or supplies for

motorcycles

Do you or could you handle and sell

motorcycles

Do you know that some of the biggest manufacturers in the automobile business are turning their capital and manufacturing genius to the making of

motorcycles

Do you know that one of the established motorcycle manufacturers now has a plant capable of producing annually 20,000

motorcycles

Do you know that dealers get from \$175 to \$375 apiece for

motorcycles

Do you know that the firms now engaged in handling motor cars or in making accessories for them are in the best position to take advantage of the coming commercial wave of the

motorcycle

Do you know the one informative, illustrated and able motorcycle trade paper that will tell you just what others are doing in the motorcycle field and through which you can tell others what you are doing or are ready to do? It is

THE  
BICYCLING WORLD  
and  
**MOTORCYCLE**  
REVIEW  
Founded 1877

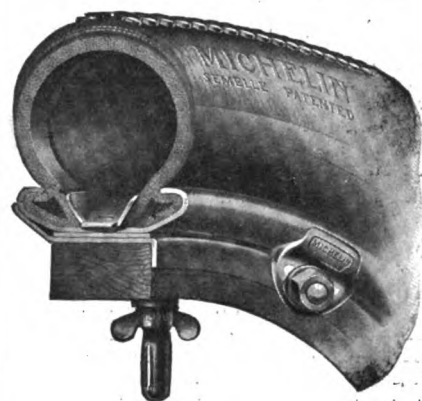
914 Tribune Building, New York City

It is read by all of the motorcycle manufacturers and by 95 per cent. of the dealers, and by thousands of motorcycle riders, the latter buying new mounts and accessories all the time.

For over ten years it has nursed motorcycling and has helped in the development of the industry from a tender infant to a young commercial giant. Advertising rates on application. Sample copies on request.

# Michelin

## DEMOUNTABLE RIM



*The Original Type*

**Simplest  
in Construction  
Lightest in Weight  
Easiest to Operate  
Absolutely Secure**

**No Lugs  
nor Security Bolts**

**MICHELIN TIRE CO.  
Milltown, New Jersey**

## RECENT PATENTS.

13,148. Hanger for Shock Absorbers. Ernst Flentje, Cambridge, Mass. Filed Feb. 9, 1910. Serial No. 543,003. Original No. 943,671, dated Dec. 21, 1909, Serial No. 519,776.

1. In a shock absorber, the combination with a cylinder and a piston therein, of a clip adapted to be secured to the axle of a car, a hanger member having a stem swiveled to said clip and provided with a laterally-extending foot which is connected to the cylinder, a bracket secured to the frame of the car, and another hanger device provided with a stem which is swiveled to the bracket and provided with an overhanging portion that is connected to the piston rod.

967,779. Tire Protector. Charles W. Jasmer, Marshfield, Wis. Filed June 2, 1909. Serial No. 499,828.

A tire protector comprising an annular body of semi-circular shape in cross section throughout its length, and a plurality of crescent-shaped clamps secured near opposite ends exteriorly of the body in contacting relation to each other, each clamp at its tread portion being of triangular shape in cross section.

967,786. Automobile Transmission Gearing. Frank F. Kohler, South Zanesville, Ohio. Filed Sept. 29, 1909. Serial No. 520,194.

1. In an automobile transmission mechanism, a drive shaft, a series of driving gears splined thereon, a pair of inwardly facing driven gears adapted to mesh with said driving gears, a differential gearing, a driving element therefor connected to said driven gears, and means to vary the position of said driving gears on said shaft and said driven gears with reference to said differential gearing.

967,806. Tire Shield. Herman F. D. Meyer, New York, N. Y. Filed Sept. 29, 1908. Serial No. 455,364.

1. A device of the kind described comprising a shield inclosing a pneumatic tire, a cape formed in overlapping sections, said sections being secured to the shield and overlapping upon a wheel rim, fastening means carried by the cape, casings carried by the wheel rim, radially arranged springs carried by said casings, radially movable plates bearing against the inner ends of said springs, and chains connected to said plates, said chains running through said casings and being secured to the shield.

967,808. Anti-Skidding Device for Automobiles. Robert A. Moore, Chicago, Ill., assignor to Frederick J. Reville, trustee, New York, N. Y. Filed Feb. 17, 1910. Serial No. 544,462

1. In combination with an automobile including a body and a rear driving wheel, an anti-skidding device comprising a hanger, means to normally carry the hanger elevated from the bottom of the wheel, and means to depress the hanger so as to engage the roadway adjacent the bottom of the wheel, said hanger including a foot disposed at an angle to the main portion of the hanger and provided on its lower surface with a series of straight parallel ridges arranged at an angle to the general direction of the foot.

967,828. Compound Internal Combustion Engine. Robert M. Pierson, New York, N. Y., assignor, by mesne assignments, to C. P. Power Company, Newark, N. J., a Corporation of New Jersey. Filed Aug. 14, 1906. Serial No. 330,537.

1. In a compound internal combustion motor apparatus, the combination of a high-pressure member adapted to isolate a compressed charge and to burn and partially expand the same, and a low-pressure member adapted during alternate phases to compress the charge for said high-pressure member and to expand the gases received therefrom, together with valve-mechanism between said members for alternately admitting the charge from the low-pressure to the high-pressure member and admitting the gases from the high-pressure to the low-pressure member.

969,290. Driving Mechanism for Lubricators. Alvaro S. Krotz, Chicago, Ill., assignor to Precision Appliance Company, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 28, 1907, Serial No. 399,555. Renewed Feb. 7, 1910. Serial No. 542,647.

1. In a driving mechanism for force feed lubricators, the combination of an open top casing, an operating shaft of a pumping mechanism arranged inside said casing, a bracket gland secured to the side of the casing, a primary operating shaft journaled in said gland in axial alignment with the aforesaid operating shaft of the pumping mechanism, and a non-circular connection between the two shafts, the bracket gland and its shaft being adapted for endwise adjustment to release the engagement with the operating shaft of the pump mechanism and permit of the same

being removed through the open top of the casing, substantially as set forth.

969,374. Illuminated Sign and Signal Lamp. Worth E. Jepson, Los Angeles, Cal. Filed Dec. 9, 1909. Serial No. 532,196.

1. A sign of the class described having a case, a light within said case, a translucent plate disposed before said light and having corrugations on its inner face adapted to refract the light and an opaque number inscribed on the outer face of said plate having its characters or digits removed laterally from the central axis of the case which is transverse to said plate whereby the portion of the plate adjacent to said characters or digits transmits only refracted and reflected rays to an observer at a remote point.

969,389. Auto Tire. Frank Modlin, Sioux City, Iowa. Filed Oct. 8, 1909. Serial No. 521,656.

1. A vehicle tire consisting of opposed series of segmental spring plates, each plate having a laterally bowed outer portion and an inwardly extended rim engaging portion at its inner end, a tread interposed between and supported by the plates, and means extending between and clamping upon the plates for holding them against lateral and annular movement.

### "A REAL Commercial Truck"

## CASS Motor Truck \$1950

One Ton Only

Choice of several bodies. 30 H. P. Four cylinder motor. Get Catalog and full details of proposition.

CASS MOTOR TRUCK CO., 1031 Lapeer Ave., Port Huron, Mich.

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That's a good way to judge the Warner Auto-Meter. You'll see it on the cars of quality everywhere; you'll find it used universally by motorists of experience.

And when a manufacturer furnishes it as part of his regular equipment, at three times the cost of an ordinary instrument, it's pretty good evidence of the quality of his car.

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HARTFORD SUSPENSION COMPANY, 104 Bay St., Jersey City, N. J.  
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3 in One will keep many parts of your car spick and span. Try this famous oil for any of the following:

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**SEATS—TOP—CURTAINS**—all leather parts. Wipe with clean waste moistened with 3 in One. Prevents leather from hardening, cracking, rotting. Cleans and preserves.

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Sold at all dealers—10c., 25c., 50c. bottles. Write us for free generous sample. 3 in One Oil Company, 64 Broadway, New York City.





Volume XXV.

New York, U. S. A., Thursday, November 17, 1910.

No. 7

## BRISCOE FORMS FOREIGN COMPANY

**Personnel Not Made Public, but Salesrooms  
Already Located in London—Four  
Years' Guarantee is Offered.**

The foreign company which Benj. Briscoe, president of the United States Motor Co., crossed the water to organize—he still is there—has come into being under the style the United International Motors, Ltd., with temporary offices and salesrooms at 114 Wardour street, London, W.

The names of none of the foreigners identified in the undertaking have yet become public, the new concern contenting itself with the announcement that "we have completed arrangements with the United States Motor Co., of the United States of America, by which we become the concessionaires of that company, with the sole and exclusive right to manufacture and sell in the United Kingdom and on the Continent of Europe, the types of motor cars which have been brought to such a high state of development by that company," and expressing its purpose "to install a manufacturing department which, having the full co-operation of our affiliated companies, will have advantages which cannot be excelled."

Maxwell, Brush, Stoddard-Dayton and Columbia cars already are on exhibition at the London establishment and are being offered with a four years' guarantee.

### Dates Fixed for Selden Patent Appeals.

Monday, Tuesday and Wednesday next November 21, 22 and 23, have been set as the dates when the Selden patent finally will be threshed out to a finish, the Ford-Wanamaker-Gude and the Panhard-Neubauer appeals having been calendared for argument on those days. The argument will be heard in New York by the United States Circuit Court of Appeals for the Third District. That tribunal which sits but three hours each day, has given each side four hours and a half in which to present its pleas as to why the judgment of the lower

court sustaining the validity of the Selden patent should or should not be upheld. The attorneys for the plaintiffs and for the defendants named already have filed their briefs, which term is a misnomer, as all of them are lengthy documents, one of them numbering more than 200 pages.

### Receiver for Rothschild Body Builders.

On Monday last, 14th inst., a petition in bankruptcy was filed against Rothschild & Co. (corporation), the well known body builders at 550 West Fifty-seventh street, New York, by Lillian H. Mandel, of Mount Vernon, and Samuel H. Morrison and Jules Rehaut. Judge Hough appointed Henry B. Singer receiver, bond \$5,000, and authorized him to continue business ten days. There are contracts on hand for \$50,000 worth of bodies. Liabilities amount to \$100,000 and assets about \$30,000. The company, in which one of the French Rothschilds is interested, was incorporated in April, 1906, with capital stock of \$35,000, which was afterward increased to \$200,000.

### Ranger's President Asks for Receiver.

Following a judgment for \$6,083 which he obtained against the company, Oscar F. Schmidt, president of the Ranger Automobile Company, of Chicago, has asked that a receiver be appointed for the concern. The company was capitalized at \$25,000 and manufactured the Ranger car, but did not make very many of them.

### Fiat Brings up a Radiator Patent.

Possessed of the Enrico patent, No. 939,961, dated November 9, 1909, the Fiat Automobile Co., of Poughkeepsie, N. Y., is serving warnings on a number of manufacturers who are alleged to be infringing the Enrico rights. The patent covers a union joint for radiators.

### Bankrupt's Assets Sell for a Song.

The assets of the Southern Motor Car Co., of Houston, which went broke while trying to build automobiles in that Texas city, have been purchased by A. C. Burton, a Houston dealer, for \$1,104. The sale was made by the referee in bankruptcy.

## "CHAUFFEUR'S FRIEND" GOES FREE

**New York Garageman Who Issued Celebrated "Graft Circular" Acquitted—Arrested for Giving Short Measure.**

Although there was no lack of evidence that short measures of gasoline had been sold in his establishment and that the gasoline gauge had been tampered with, Edward Underhill, former proprietor of the Garage De Luxe at 57 East 108th street, New York, was acquitted by the Court of Special Sessions on Monday last, 14th inst. The fact that the chief witness against him, William A. Myers, a one-time employe, had removed across the river to New Jersey and could not be induced to come over and substantiate the affidavit he had made, and that Underhill himself denied everything including personal knowledge of the offense seemed to bear in his favor with the three judges.

Underhill's case was out of the usual order in that it was the first of its sort and that he posed as the "chauffeur's friend" and openly advertised that every chauffeur who brought him business of any kind would get his "bit." His circular holding out this promise of graft was introduced into his trial, but it had only an indirect bearing on the case, with the prosecution of which the Garage Owners' Association was identified. Underhill was charged with violating section 1290 of the penal code in that on July 26th last he sold to Lee J. Mills, an inspector of Weights and Measures, 10 gallons of gasoline at 14 cents per gallon, which when measured in front of Underhill and his employe, one Henry A. Roy, was found to be but 8 gallons and one gill. Mills testified to these facts and further, that after showing his badge he examined the pump or gauge and ascertained that it gave short measure. The pump—a Bowser Automatic—had been adjusted in such a manner as to raise a set screw which prevented the piston from reaching within 1¼ inches of

its limit. It thus delivered 12 to 13 per cent. short measure on each stroke. On August 3d, Inspector Mills returned to Underhill's garage with a representative of the Bowser company and found that the pump had been readjusted, a statement corroborated by the Bowser representative. W. S. Horner, of the Garage Owners' Association and A. P. Palmer, of Palmer & Singer, testified that they were present when Inspector Mills made his short measure purchase.

When placed on the stand in his own behalf, Underhill proved a breezy and loud-mouthed witness. He denied all knowledge of the short measure transaction and avowed that other garage owners were opposed to him because he sold gasoline at less than the prevailing retail rate of 20 to 25 cents per gallon. He frankly admitted that he sold it for anything between 12 and 18 cents, depending on what he thought the buyers would stand. His attorney made a great fight to keep out Underhill's celebrated "graft circular," but it was finally admitted in evidence and appeared to have visible effect on the court. It is as follows:

We make it a point in our business to always keep our word with a chauffeur. He can always depend on us. If we promise him a commission or a percentage or a job he always gets it. You would be surprised to learn what a lot of money we have paid out to wise chauffeurs who always pull with us and nobody else.

If you know of any tires, speedometers, tubes, horns, lamps, or tools for sale, come and see us. We will buy for spot cash and you get yours.

Remember you always get yours.

We have helped many a down-and-out chauffeur when out of a job.

If you know of any one about to buy a new car, bring him to us and get yours.

Keep your eyes open and inquire around and we shall be making money together.

Remember that Underhill is always the friend of the chauffeur, and always keeps his word and makes good.

Despite his attorney's fight to keep the document out of the case and without regard for the dignity of the court, when Underhill was asked if he wrote the circular, he responded in a loud voice:

"Yes; and I consider it a damned good one, too."

Before leaving the stand, he testified that he no longer owns the garage on East 108th street, being now in the same business on 145th street, between Broadway and Amsterdam avenue. After hearing two character witnesses and deliberating for five minutes, the court discharged Underhill, to the surprise and disappointment of a large number of New York tradesmen who were present at the trial.

#### Confusion that Caused Misconceptions.

By a slip of the types, it was stated in last week's Motor World that it was the Columbia Buggy Co. that was in no way involved in the Salt Lake City suit of Mrs. M. E. Smith for the recovery of the pur-

chase price of a Columbus electric, \$1,650, when it was meant to say the Columbus Buggy Co., of Columbus, Ohio. The suit was due to the finding of an old and worthless tray of batteries when the car was delivered and the evidence showed that the substitution had been made after the car had left the Columbus factory and had reached Salt Lake City.

#### San Franciscans Secure Sacramento Site.

The "A" Automobile Mfg. Co., of which E. C. Collins and T. F. Cooke, both of San Francisco, are president and treasurer, definitely has decided to locate in Sacramento, Cal., where a ten acre site has been secured. An office has been established in the Hotel Land building and as soon as the company's architect has made "a thorough examination of the ground," a steel and concrete factory will be erected. In addition to making this announcement, the "A" people have stilled some fears by making known that they mean not merely to assemble cars but to build them entire and "sell them at considerably lower prices than those manufactured in the East."

#### Bostonians Form a Truck Association.

Under the style the Boston Motor Truck Association a new body was organized on Saturday last, 12th inst., by automobile dealers in the Bean city. Twenty-five members were enrolled and these officers elected: President, J. W. Maguire; vice-president, A. P. Underhill; treasurer, J. S. Hathaway; secretary, Chester I. Campbell; board of directors: the above-mentioned officers and A. B. Henley, V. A. Charles, L. B. Butler and C. F. Whitney.

#### Robinson Republic Rubber's Chairman.

Thomas L. Robinson, trust manager of the Dollar Savings & Trust Co., of Youngstown, Ohio, has been elected chairman of the board of directors of the Republic Rubber Co., of that city. He succeeds the late Warner Arms as the financial head of the big company. After the death of Mr. Arms, J. F. McMaster was elected president to succeed him, but he will devote all his time to the duties of president and general manager.

#### Waverley Establishes Branch in Chicago.

The Waverly Co., of Indianapolis, has taken over the business of the Waverley Electric Vehicle Agency in Chicago and henceforth will conduct it as a factory branch at 1714 Michigan avenue, although it soon will be removed to larger and handsomer quarters further south on the same avenue. J. C. Cooley, who previously was identified with the agency, is in charge of the branch.

#### Koehler Carries Hupmobiles to Boston.

The H. J. Koehler Co., of New York, Eastern distributor of the Hupmobile, is to establish a Boston branch for the ex-

clusive sale of that car; in fact, temporary headquarters already have been opened at 17 Ipswich street, but the new branch will be permanently located at 1074 Boylston street, which place when its appointments are completed, will be one of the handsomest retail stores in New England. It will be under the management of W. H. Shutt, formerly metropolitan manager of the Koehler company.

#### Spare Tire Cases Get into Court.

The Gilbert Mfg. Co., of New Haven, Conn., has filed suit in the United States Circuit Court, against the B. E. Mfg. Co., of New York, alleging infringement of the Fredson E. Bowers patents on spare tire cases. The usual injunction and accounting is asked for. The patents involved are Nos. 779,578 and 915,069.

#### Engineers Fix Date for Annual Meeting.

The annual meeting of the Society of Automobile Engineers will take place in New York, January 11 and 12. Officers will be elected, of course, and there will be discussed several technical subjects concerning which printed papers will be distributed in advance of the meeting.

#### Moline Superintendent Sails to Paris.

Eugene Grunewald, superintendent of the Moline Automobile Co., sailed on Tuesday last to Europe. He goes principally to cast a critical eye over the Paris show and with long stroke motors specially in mind, the Moline company being one of the American advocates of that type of engine.

#### Jewel Capital Increased to \$450,000.

The Jewel Carriage Co., of Carthage, Ohio, maker of the Jewel car, has increased its capital stock from \$250,000 to \$450,000. Of the new issue, \$150,000 is 6 per cent. first preferred cumulative stock and \$50,000 second preferred, non-cumulative.

#### To Build Big Truck Plant in Detroit.

The Universal Motor Truck Co., of Detroit, Mich., has contracted for the immediate erection of a factory at Theodore and Dequindre streets. It will be of four stories, 253 x 61 feet, of concrete and pressed brick.

#### Faurote Quits the Automobile Business.

Fay L. Faurote, advertising manager of the E. R. Thomas Motor Co., Buffalo, N. Y., has resigned that position to become attached to a large corporation in Chicago. His resignation becomes effective November 30th.

#### Pelletier Suffers a Double Affliction.

E. Leroy Pelletier, the widely known publicity manager of the E-M-F Co., is seriously ill at his home in Detroit. A supposed indisposition has developed into a case of typhoid pneumonia.

**BANKERS RETIRE OLD DIRECTORS**

**Wall Street Shakes Up General Motors and Retains Only Durant—Doings at the Annual Meeting.**

Wall Street tightened its grip on the General Motors Co. on Tuesday last, 15th inst., when at the annual meeting of the company, held in Jersey City, the men who advanced the \$15,000,000 loan, formally elected their representatives as directors. In accordance with the program, all of the former General Motors' directors, save W. C. Durant, stepped down and out, and were succeeded by these men who had been nominated by the voting trustees: W. C. Durant, Anthony N. Brady, James J. Storrow, Albert Strauss, J. K. McClement, Nicholas L. Tilney, Richard Lakeman, Jr., George Richard, Jr., Benjamin F. McGuckin, Herbert L. Carlebach and Arthur P. Bush, Jr. The last four named, it is understood, are merely temporarily on the board. They will be succeeded later by four Detroit men.

Four of the new directors represent the General Motors Company. The others represent the financial interests which floated the note issue. Mr. Storrow is of Lee, Higginson & Co., of Boston, and Mr. Strauss is with J. and W. Seligman & Co.

The new board shortly will meet to elect officers.

The retiring directors are William E. Eaton, Curtis R. Hatheway, J. T. Smith, William J. Mead, Henry Henderson, A. M. Bentley, Samuel McLaughlin, Schuyler B. Knox, E. R. Campbell and W. C. Leland.

The directors also declared the semi-annual dividend of 3½ per cent. on the preferred stock, which had been deferred from October 15, to be paid on November 30, 1910. It is payable to holders of stock trust certificates on record at the close of business November 21, 1910.

The fact that Anthony N. Brady, one of the new directors, is also interested in the United States Motor Co. has revived the often denied reports of a probable merger of the General Motors and United States companies.

After Tuesday's meeting, W. C. Durant, vice-president of the company, gave out a statement to the effect that the company had received sufficient funds to pay all its debts and those of its subsidiaries and that checks are "now in process of being mailed." The statement continues:

"To provide for the repayment of these advances the company has issued \$15,000,000 of 6 per cent. five year sinking fund notes of a total authorized issue of \$20,000,000 secured by a first lien upon the manufacturing plants of the subsidiary companies to the Central Trust Company of New York as trustee. The deed of trust provides for

a sinking fund which is payable as follows: On or before the first day of October, 1911, the sum of \$1,500,000.

"On or before the first day of October, 1912, the further sum of \$1,500,000.

"On or before the first day of October, 1913, the further sum of \$2,000,000.

"On or before the first day of October, 1914, the further sum of \$2,000,000.

"The \$5,000,000 of reserved notes can be issued only subject to the restrictions of the deed of trust.

"Pursuant to an agreement with the bankers a majority of the outstanding capital stock of the company has been deposited with the Central Trust Company of New York as depository to be voted until repayment of the notes by Messrs. James N. Wallace, William C. Durant and Anthony N. Brady as voting trustees."

For several days preceding Tuesday's meeting, the recorders of mortgages in the places where the General Motors' properties were kept busy recording deeds of transfer from the subsidiary companies to the General Motors Co. In Detroit, the Cadillac transfer represented a consideration of \$1,840,000, the Welch realty, \$300,000, and the Northway Motor & Mfg. Co.'s \$529,000. In Saginaw, Mich., the transactions represented transfers of the Marquette Motor Co.'s property, \$475,000, and the Jackson-Church-Wilcox Co., \$132,000.

Despite the final consummation of the big loan, the value of General Motors' shares has refused to soar even in Detroit. Instead of rising, on Saturday last, the preferred went off 3 points, being quoted in Detroit at 75, while the common still linger around 40.

**Carples Resigns to Enter Import Trade.**

James M. Carples, since their organization the manager of the Licensed Automobile Dealers of New York, has tendered his resignation. He is to become general manager of the Daimler Import Co., of New York, which handles the Mercedes car in this country. His successor has not yet been chosen. At the last meeting of the Dealers, however, they filled the vacancies caused by the resignations of George W. Bennett and Harry Fosdick, both of whom have gone into the manufacturing end of the business. Their successors are R. H. Johnston (White) Co., and I. M. Upperson (Cadillac).

**Boston Top Makers Building Big Plant.**

The Columbia Tire & Top Co., of Boston, Mass., which makes tops and windshields and not tires and which recently transferred itself into a corporation, is using much of its new capital for the erection of a two-story concrete factory building, 144 x 60 feet, on Commonwealth avenue, Boston. The structure will be ready for occupancy January 1st. Meanwhile the company is continuing its business at 31 Irvington street.

**THE "SECOND HAND" SITUATION**

**The Used Car Still a Baneful Factor—Some Causes and Remedies Discussed by a Man High Up.**

Despite the time and effort devoted to its attempted solution, the used car problem still remains very much of a question and one which does not contribute to either the peace or the plenty of the industry. In some places the situation has assumed serious proportions. In Chicago, for instance, the accumulation of second-hand cars attained such proportions that auction sales were resorted to as a means of relieving the glut; and auction sales usually are disturbing factors and do not contribute to the health of any business.

In at least two other known instances, in Eastern cities, the dealers concerned took so many used cars in trade for new ones that they were seriously crippled. One of them saved himself from bankruptcy only by the most drastic measure. With some fifty-odd second-hand cars in stock at the close of the season he awakened to his peril and met it by resolutely refusing to contract for a single new car for the ensuing year; he applied himself wholly to the task of getting rid of the "old fellows;" in other words, during most of the season just closed the dealer was to all intents and purposes a "second-hand dealer," not from choice but from necessity. By hard work and with good luck he "cleaned house" and once more is able to smile; but he is a much chastened individual.

Most of the trouble is due of course to the desire of the dealer to do too much business, and apart from winning new customers to keep his old ones. To serve these ends he is prone to take too many old cars in trade and to allow for them prices that are far too high. Usually the higher the price of the car he handles the higher the price he allows for the car that is taken in trade; in fact, it is the dealer who handles cars listing at more than \$1,000 or \$1,500 to whom the used car question is most serious. The very price of the product induces him to engage in "trades" which agents for lower-priced cars could not consider even for a moment.

"It is bad enough for an agent to allow fancy prices for old cars," said a man high up in the trade who did not attempt to disguise the fact that the used car is something of a menace, "but the matter is made worse by the manner in which he usually hangs on to them. Always he is bent on 'getting his money back,' and usually he is over-sanguine on the point. Rarely does he seem fully to appreciate that nothing depreciates more rapidly than second-hand goods, and as a result he holds on to his traded-in cars until they become practic-

ally dead weights on his hands. I know so many instances of the sort that it irritates me to think of them. I know one chap who allowed \$1,400 on a "trade" and who a week later was offered \$1,200 for the used car. He laughed it to scorn. He was intent on 'getting his money back.' But when after several weeks he decided to sell for \$1,200, he could obtain but \$1,000 and again he refused it. When toward the close of the season he finally brought himself to 'take his loss,' he sold the car for \$900. While the amounts may vary, this is typical of the average dealers frame of mind and of the general result. No agent can do that sort of thing very often or very long and remain in business, or at any rate do much more than live from hand to mouth. To be safe, the dealer must cease placing fictitious values on old cars. He must let the owner bear the loss, and when he does take a used car in trade he must get rid of it just as quickly as the law allows. Every day that he holds it lessens its value, and it is time this important truth was realized. The matter is of concern to the manufacturer, because if the dealer cannot make money, the manufacturer cannot do so."

"Is not some of the trouble due to the desire of the manufacturer to book large orders and thus cause dealers to overpurchase and overstock themselves?" asked the Motor World representative.

"I don't think so," responded the high-up man. "I don't think many manufacturers are doing that sort of thing nowadays. Most of them realize the folly of deceiving themselves, and if they are doing anything, they are urging their agents to buy conservatively and in many instances actually are paring down the agents' orders. There really is no reason why any dealer should overbuy or overstock himself. The supply now practically is abreast of the demand, and there is no necessity for any dealer to indulge in guesses as to the extent of a whole season's demand. All he need do is to place orders for early spring deliveries; the remainder of the year will take care of itself, and there is small likelihood that he then will be unable to get cars just when he wants them."

"But is it not a more or less notorious fact that the manufacturers' branch houses have been among the worst offenders in respect to the trading-in evil. Generally speaking, have they not been allowing for used cars prices which the ordinary agent scarcely could dream of quoting and is it not frequently merely a polite form of pricecutting?"

"I won't say 'yes' and I won't say 'no' to those questions," replied the man high up. "If they represent the situation correctly, then the manufacturers concerned have paid a high price for their folly, and I think you will find that it is no longer true and that the wings of the branch stores have been considerably trimmed."

### THE WEEK'S INCORPORATIONS.

Sioux Falls, S. D.—Ashton Auto Co., under South Dakota laws, with \$20,000 capital.

Grand Blanc, Mich.—King Shock Absorber Co., under Michigan laws, with \$5,000 capital.

Muskegon, Mich.—Calhoun Motor Materials Co., under Michigan laws, with \$1,000 capital.

Detroit, Mich.—Wolverine Motor Supplies Co., under Michigan laws, with \$25,000 capital; to deal in supplies and accessories.

Bronxville, N. Y.—Bronxville Garage Co., under New York laws, with \$10,000 capital; porators—H. C. Andrews, G. C. Betts and A. D. Britton.

Detroit, Mich.—Jeffery-Dewitt Co., under Michigan laws, with \$50,000 capital; to manufacture spark plugs. Corporators—M. E. Lewis, Sarah A. Dewitt, B. A. Jeffery.

Syracuse, N. Y.—Regal Auto Co., under New York laws, with \$5,000 capital; to do general automobile business. Corporators—Charles J. Travers, Otto Johnson, W. F. O'Connor.

St. Louis, Mo.—Brooks-Latta Auto Co., under Missouri laws, with \$150,000 capital; to manufacture automobile trucks. Corporators—Charles E. Brooks, Charles Latta and Allen T. Latta.

Boston, Mass.—Lenox Motor Car Co., under Massachusetts laws, with \$75,000 capital; to deal in motor vehicles. Corporators—A. A. Martell, Boston, and F. A. McKlaskey, Brockton.

Danville, Ky.—Danville Motor & Electric Co., under Kentucky laws, with \$5,000 capital; to maintain a garage and deal in automobiles. Corporators—E. B. Nelson, H. P. Beasley, Alfred B. Nelson.

Milwaukee, Wis.—Evinrude Motor Co., under Wisconsin laws, with \$20,000 capital; to deal in automobiles and other motor vehicles. Corporators—Ole Evinrude, Christopher J. Meyer, Amanda Meyer.

Dayton, Ohio—Dayton Taxicab Co., under Ohio laws, with \$25,000 capital; to operate a taxicab service and maintain a garage. Corporators—J. D. Hodson, J. G. Hamilton, G. G. G. Peckham, A. S. Iddings.

San Antonio, Tex.—Commercial Motor Car Co., under Texas laws, with \$100,000 capital; to manufacture and deal in automobiles and motor vehicles. Corporators—Z. Z. Brandon, B. A. Gramm, H. O. S. Kinner.

Buffalo, N. Y.—Lutz Motor Co., under New York laws, with \$20,000 capital, \$3,000 of which has been paid in; to deal in motor cars. Corporators—Edward J. Hussey, William G. Pennypacker, Jr., William A. Lutz.

Toledo, Ohio—Standard Garage Co., un-

der Ohio laws, with \$5,000 capital; to maintain a garage and deal in automobiles. Corporators—R. A. Parker, Jennie Parker, William Searles, M. M. Turner, William G. Clark.

Indianapolis, Ind.—Roberts Mfg. Co., under Indiana laws, with \$10,000 capital; to manufacture carburetters and other mechanical devices. Corporators—J. N. Kelly, L. J. Edmunds, W. H. Roberts, Elmer Wetzel.

Milwaukee, Wis.—Automobile Directory Co., under Wisconsin laws, with \$5,000 capital; to publish lists of persons employed in the automobile trade. Corporators—W. J. Murphy, John McLaughlin, W. J. McLaughlin.

St. Paul, Minn.—Electric Auto Light Co., under Minnesota laws, with \$50,000 capital; to manufacture automobile lamps. Corporators—Franklin G. Curtis, Robbinsdale, Clarence D. Price, Fred W. Price, of Minneapolis.

Brooklyn, N. Y.—Purchasers Automobile Co., under New York laws, with \$10,000 capital; to deal in automobiles and other motor vehicles. Corporators—Clyde E. Black, Joseph M. Schwartz, Nathan T. Schwartz, all of Brooklyn, N. Y.

Detroit, Mich.—Lodewyck-Hyder Motor Co., under Michigan laws, with \$15,000 capital; to deal in automobiles and operate a garage. Corporators—A. G. Lodewyck, Ralph W. Binkley, Edward A. Cother, Henry A. Lodewyck, all of Detroit.

New York City, N. Y.—J. S. Bretz Co., under New York laws, with \$30,000 capital; to manufacture and deal in carburetters, magnetos, ball bearings, etc. Corporators—J. S. Bretz, A. L. O'Shea, of New York City; C. V. Tuthill, of Jersey City, N. J.

Bloomington, Ill.—People's Bus Line and Livery Co., under Illinois laws, with \$38,000 capital; to do general garage, livery, omnibus and carriage business. Corporators—John A. Beck, Chester E. Montgomery, Jennie A. Beck, Richard A. Jolly, all of Bloomington.

Poughkeepsie, N. Y.—Cleveland Taxicab Co., under New York laws, with \$10,000 capital; to rent automobiles for hire and conduct a general livery business. Corporators—Manning Cleveland, Frederick H. Cleveland, Nora B. Cleveland, all of Poughkeepsie, N. Y.

Newark, N. J.—Brown-Sautter Motor Truck Co., under New Jersey laws, with \$100,000 capital, of which \$2,800 has been paid up; to manufacture and deal in commercial motor vehicles. Corporators—John E. Brown, George Sautter, Harry Sautter, all of Newark, N. J.

### Increases of Capital.

Chicago, Ill.—Clark Delivery Car Co. from \$5,000 to \$150,000.



## IN THE RETAIL WORLD.

W. S. Mitchell, of the Citizens Auto Co., San Marcos, Tex., has sold his interest to W. A. Schrutchin and Marion Wills.

A new garage is being erected in Jacksonville, Fla., by Claude Nolan. It is located at 15-17 East Church street, and will house the Cadillac line.

Under the style Harding & Glanville, a new firm has opened in Mason City, Ia. Clarence Harding and Charles Glanville compose the partnership.

L. L. Dixon has purchased the Palace Garage, 497 Main street, Dallas, Tex. Dixon formerly was engaged in the automobile business in Fort Worth.

William Van Orsdel has purchased a half interest in the Dunagan Garage at Glenwood, Ia. The firm name has been changed to Dunagan & Van Orsdel.

J. H. Moorse has purchased the business of O. W. Lane and will continue it under his own name. The garage is located on River street, Lansing, Mich.

The Southern Motor Works, which manufactures the Marathon car in Nashville, Tenn., has established a branch in Dallas, Tex. It is in charge of H. H. Brooks.

E. T. Sterling, a banker of San Francisco, Cal., has formed a partnership with A. J. Smith to handle Elmore cars in that city. The firm name will be Smith & Sterling.

At a cost of \$4,000 the Brown Auto Co., of Louisville, Ky., is erecting a one-story brick garage on Third street. The building is to be ready for occupancy by December 1.

Finding its former quarters too cramped, the Straeffer-Arterburn Motor Car Co., of Louisville, Ky., has moved its offices from 1103 East Broadway to 324 East Market street.

Samuel W. Avis, who conducted a garage and renting establishment in New Britain, Conn., has filed a petition in bankruptcy. His liabilities are \$5,032.16 and his assets \$1,965.02.

T. A. Davis, Harry W. Smith and C. S. Cummings have formed a partnership and opened a garage and salesroom in Seattle, Wash. They will handle Lozier cars and Mack trucks.

The Longstreth Motor Car Co., of Reading, Pa., has moved into more commodious quarters at 212 Penn street, and will continue to show Pullman automobiles. E. F. White is the manager.

Work has been started on the new garage which H. W. Balsley is building at South Clinton and Tallman streets, Syracuse, N. Y. The structure will be 82 x 125 feet, of steel and concrete.

The agency for Regal cars in Wichita, Kans., has been taken over by the Baldauf & Liggett Co., which also handles Crawford and Franklin cars. The headquarters are at 118 North Emporia avenue.

A new garage is under course of construction for the Central City Motor Car Co., at Taylor and South streets, Syracuse, N. Y. E-M-F and Haynes cars will form the mainstay of the company.

A. T. Segura, of New York City, has established a salesroom for second-hand cars at 5355 Stanhope street, Boston, Mass. He is associated in the venture with Fred A. Load, who builds automobile bodies.

S. M. Ament, formerly with the Oldsmobile agency in Pittsburg, Pa., has purchased an interest in the Metropolitan Motor Car Co., at 1311-15 Fifth avenue. The company handles the Alco and Pullman productions.

The Deck & Stewart Auto Tire Co. is the style of a new concern that has opened up an automobile tire business at the corner of Fifth and Lafayette streets, Waterloo, Ia. Jacob Deck and A. C. Stewart are the men in charge.

With a capital stock of \$5,000, fully paid up, the New Auto Exchange Co. has been incorporated in San Diego, Cal., to operate a garage and salesroom at 2345 H street. J. W. Coats, H. A. Kiersey and E. Brockway are the men behind the venture.

Incorporated under the laws of Ohio with a capital stock of \$5,000, the Standard Garage Co., of Toledo, Ohio, has opened up at 233-37 Ontario street. R. A. Parker, Jennie Parker, William Searles and William G. Clark are the incorporators.

The Paxton & Gallagher Co., of Omaha, Neb., one of the West's big hardware jobbing houses, has added to its stock a complete line of automobile accessories. The company also has been appointed distributor of Sterling tires in the Central West.

Organized with the intention of marketing National cars in Southern California, the National Motor Car Co. has opened a garage at 2414 West Seventh street, Los Angeles, Cal. The firm is composed of J. D. Scouller, A. M. Brown and E. Y. Booth.

Schedules in bankruptcy of the Cloud-Marts Co., of 1871 Broadway, New York City, show liabilities of \$6,072 and no assets. The assets were transferred by order of the Supreme Court on September 20 to Franklin Leonard, Jr., as receiver in dissolution proceedings.

R. A. Cruzan & Co., the Cartercar agents in Des Moines, Ia., have purchased the property at 909-911 Walnut street in that city, which is being remodeled to suit their needs. When the improvements are completed, the firm will have a much larger and much handsomer establishment.

The Reo Motor Distributing Co., of Atlanta, Ga., has been formed for the distribution of Reo cars in the South, and has located at 222-224 Peachtree street. H. E. F. Jones is the president of the company, R. C. Smith, vice-president, and Jere

F. Turnlin, secretary-treasurer and manager.

The Cartercar Sales Co. has been organized in New Orleans, La., and has located at 1922-24 Common street. As its title indicates, it will handle the friction-driven Cartercar. J. A. Jaeger is president of the company, T. B. Cucheran, vice-president; R. L. Gaeger, secretary, and Victor Shaw, manager.

Under the style Shallberg & Howard, the three Shallberg brothers of Moline, Ill., and I. T. Howard, the inventor of the electrical block signal system used on the Rock Island railroad, have opened a garage, salesroom and repair shop at 1204 Fourth avenue, Moline, Ill. The building is 45 x 151 feet, of brick construction, two stories high, and will serve as headquarters for Cole cars and the Rauch & Lang electrics.

A petition in bankruptcy has been filed in the United States District Court against the Pennsylvania Motor Car Co., which was doing business at 128 North Broad street, Philadelphia, Pa. The proceedings, which were taken by three creditors whose aggregate claims amount to \$534,24, form the climax to the disappearance on November 5th of Walter M. Cram, manager of the company, and the execution of a judgment for \$2,009.24 obtained against the company by John G. Vogler, of 622 Chestnut street. The petitioning creditors are Walter E. Lanagan, Vulcan Brazing & Machine Co., and Lovegrove & Co. The assets and liabilities of the company cannot be estimated at this time, owing to the disappearance of the manager and difficulties in locating the proper items in the books.

## Recent Losses by Fire.

Council Bluffs, Ia.—J. C. Erler's garage totally destroyed. Loss, \$10,000.

Cleveland, Ohio—Acme Brass Foundry Co.'s Woodland avenue plant burned. Loss, \$5,000.

New York City, N. Y.—Bretton Hall Garage, 152 West 83d street, damaged and five cars destroyed. Loss, \$25,000.

Philadelphia, Pa.—Automobile Sales Corporation, 144 North Broad street, one car burned and garage damaged. Loss, \$3,000.

South Windsor, Conn.—J. E. Lathrop's garage and four cars destroyed. Loss, \$10,000; covered by insurance.

## Changes Among Prominent Tradesmen.

Orin S. Wilson has been appointed manager of the Studebaker Colorado Vehicle Co., of Denver. Previously he was connected with the Studebaker headquarters in South Bend, Ind.

E. B. Tozier has been transferred from the management of the Diamond Rubber Co.'s Cincinnati branch to similar duty at the Diamond branch in Minneapolis, where he succeeds W. E. Roby. Tozier has been in the Diamond service some seven years.

## A New Car

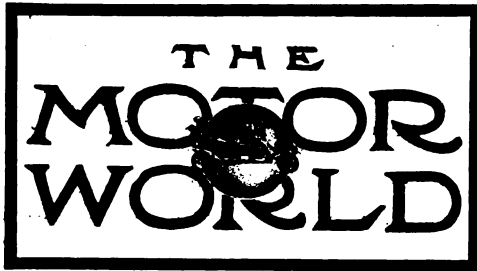
**T**HE WHITE COMPANY presents its latest model, a 40 Horse-power Gasoline Touring Car—with five passenger torpedo body priced at \$3,000.00; with seven passenger body at \$3,200.00. This car being an entirely new design finds our engineers unhampered by precedent, and with but one idea uppermost, to produce the best type of car possible. This car, therefore, combines the best and most advanced engineering of the day, and the finest examples of the body builder's art. The triumph of the motor design will be found in its economical operation. Our engineers have but one order, and that, to produce the best. It is with pride that we announce that the essential characteristics of the White Gasoline Construction are retained—the cylinders are cast en bloc and the economical long stroke engine is continued.

In fact, so typical of the best and latest engineering practice is the 30 horse-power White gasoline motor, that with the experience of the world's engineers from which to draw, no improvements have been suggested in the new engine—and it may be called only a larger type of the same design.

Sample cars will be on display  
on or before November 25th.

**The White  Company**

**830 East 79th Street, Cleveland**



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### About Safeguarding the Accelerator.

Probably most people are not aware that an automobile is possessed of nerves. Yet there exists in the patter of the professional chauffeurs a phrase that shows plain recognition of such an attribute. "Will she jump if you jump on her?" they ask, and the answer affords a prompt and terse measure of the "life" of the machine under discussion. By a stretch of the imagination the strange lack of agreement between the novice driver and his car also may be laid to the same cause; the car resents unfamiliar handling and a quarrel ensues in which the driver is lucky if he comes off skin-whole.

Among engineers the same quality is recognized under the term acceleration, and the fancied "nervous system" of the car is known to center about the mechanism of control. If the car is possessed of sufficient accelerative power it will literally step from under when the throttle pedal is trod upon

violently—it will "jump" when it is "stepped on." But, by the same token, the response in a good car will be just as prompt and decisive whether the pedal movement is intentional or otherwise. Hence the occasional mishaps of the amateur or excited driver who mistakes the accelerator for the clutch or brake pedal.

In the case of the novice and some who are not novices, it almost invariably happens that a wrong movement is made at a critical instant. There are exigencies when action must be, if possible, as rapid as thought, and even more certain. At such a juncture even an experienced driver may become confused for the moment if the arrangement of the car offers a chance for confusion. In the recent and more or less celebrated Rosenheimer case in New York, the defendant testified that at the instant of colliding with the buggy he inadvertently touched the accelerator in mistake for the brake pedal, and there have been other instances in which experienced drivers have made equally fatal mistakes under similar circumstances.

About the question of control mechanism much difference of opinion exists. At the present time there is a certain sort of rough standardization in the arrangement of pedals and levers, yet the uniformity is not sufficiently close so that a man may climb out of one car and into another of a different make and drive it with equal assurance in every instance. Sometimes the differences may be only embarrassing. More often they are really dangerous, and this is especially true when emergency brake levers are found to work in opposite directions, when the positions of first, second and third speeds are transposed and especially when the accelerator and clutch pedals are brought too close together.

Apart from the irregularities in the practice of different manufacturers, it is a fact that few, if any, control systems are ideal in arrangement. It is true that cars are not built for children to drive, that a certain amount of mechanical intelligence is presupposed in a person who is otherwise competent to drive, but it is recognized that the more elementary the control arrangements may be the simpler the problem of learning to drive and the less the liability to confusion. Obviously the matter is one that will bear a great deal more study than yet has been given it.

Insofar as the "nerves" of the average

car are concerned, it is obvious that their control depends upon the nature and position of the accelerator. A needless variety of patterns exists and no uniformity of location. And while it is not easy to dictate just what arrangement is best, it is possible to criticize faulty arrangements. For example, the push-button and piano pedal types should go, as being inclined to weary the foot and ankle; the crowding of the accelerator close to the clutch and brake pedals, where it may be touched by mistake should be eliminated and above all, the accelerator should be so far removed from the clutch pedal that there will be no temptation to apply the clutch foot to it. Wherever it should be and however it should be arranged, the "ticklish spot" should be of such a nature that it cannot be reached accidentally.

### Salesmanship at the Annual Shows.

It may be possible to sell a large number of pianos on the merits of their cases, and where this condition obtains it is the varnish maker as much as the clerk who furnishes the real selling argument. But every experienced and successful piano house finds it expedient to have on the floor at least one representative who is both a technical musician and an expert in the construction of actions, sounding boards, harps and strings. Similarly it occasionally may happen that the seductive lines and lustrous surface of its body actually perform the function of selling an automobile, while the demonstrator and salesman merely serve as accessories to the display. It would be very fine if such were invariably the case in the marketing of motor cars—both handy and economical—but it is not.

The wisdom of the public in respect to automobile matters is increasing at a rate that puts some of the alleged experts of the industry to blush. Competition is forcing manufacturers to assist in popular education; to establish conviction as to the advantages of their respective products it is necessary to define their excellences, to make the demonstration clear it is necessary to expound certain fundamental principles. The result is that the average motorist, and particularly the motorist-in-embryo, are delving into automobile theory to an almost embarrassing extent. The automobile salesman of the old school often feels the effect, and unless he has been

bright enough to get thoroughly acquainted with the works of his car he frequently finds himself shifting from the aggressive position of assured knowledge to the uncertain and often fatal one of ordinary bluff.

Of course it is recognized that the retail dealer is not wholly to blame if his staff is ignorant, careless or just plain incompetent. It is not so easy to get good men in the first place, and, when they are really good, that is, well informed, competent, courteous and experienced in the wiles of salesmanship, it is not always easy to hold them. The case of the manufacturer is somewhat different. And it is passing strange that in many instances the maker's own representatives give the impression of being no better versed in the mechanical properties of their cars than the ordinary run of garagemen.

The sad truth never is more apparent than at show time, when thousands of eager students of automobiling crowd around the booths in an effort to clinch information they have been grasping at for months, possibly for a whole year. And while the average exhibitor probably would shrink from the thought of running his part of the show merely as an educational exhibit, that is what it actually amounts to in large measure, and that explains in part its attraction for the public. Ignoring the possibilities, however, it has been the custom for many years to put on the stands attendants of the grade of furniture salesmen. One who has had experience of the sort, expresses his views forcibly elsewhere in this issue, and it may be said that his disappointments are similar to those of many seekers after real information at the shows. There is no question about its being hard to get good salesmen, but it also is hard to build a good car; it is the lumpiness of certain organizations that affords the real cause for complaint.

#### Possibilities of Portable Telephones.

From as far North and West as Duluth comes the news of a movement that is small in its way, yet evidence of the big ideas that spring in the newer sections of the country. The project is to enlist the co-operation of the telephone companies and secure the installation of plug sockets on every fifth telephone pole along established lines. The motorists, who are responsible for the scheme in its present form, then could hire portable instruments, which

## COMING EVENTS

November 19-26, Oakland, Cal.—First annual show of Oakland Automobile Dealers' Association in Idora Park.

November 22-26, Lake Charles, La.—Louisiana Fair Association's race meet.

November 24, Redlands, Cal.—Mile High Hill Climb Association's contest.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Guttenberg, N. J.—Race meet under auspices of the Automobile Club of Hudson County.

November 24, New Orleans, La.—Race meet under auspices of New Orleans Automobile Club.

November 26-27, Los Angeles, Cal.—Motordrome races.

November 30-December 1, New York City—Annual meeting of American Automobile Association in Hotel Belmont.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 12-17, Los Angeles, Cal.—First annual "independent" show of Los Angeles Motor Car Dealers' Association at Shrine Auditorium.

December 24-31, Los Angeles, Cal.—Second annual show of Licensed Motor Car Dealers' Association of Los Angeles at Fiesta Park.

December 25-26, Los Angeles, Cal.—Twenty-four hours race at Motordrome.

December 31-January 7, New York City—"Independent" automobile show in Grand Central Palace.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 11-12, New York City—Annual meeting of the Society of Automobile Engineers.

January 13, New York City—Annual banquet of the Motor and Accessory Manufacturers at Waldorf-Astoria.

January 14-28, Philadelphia, Pa.—Annual show of Philadelphia Licensed Automobile Dealers' Association in Third Regiment Armory.

January 15-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-22, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

February 14-19, Dayton, Ohio—Second annual show in Memorial building.

February 15-21, Kansas City, Mo.—Fifth annual show of Kansas City Automobile Dealers' Association.

February 18-25, Minneapolis, Minn.—Minneapolis Automobile Show Association's annual show in National Guard Armory.

February 20-26, Omaha, Neb.—Third annual show of the Omaha Automobile Show Association in Auditorium.

February 24-27, New Orleans, La.—First annual show of New Orleans Automobile Club at Fair Grounds.

February 25-March 4, Toronto Canada—Annual show under auspices of Ontario Motor League.

February 25-27, New Orleans, La.—New Orleans Automobile Club's annual Mardi Gras racemeet on Fair Grounds track.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 7-11, Des Moines, Ia.—Third annual show of Des Moines Automobile Dealers' Association at the Coliseum.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

could be carried in suitable cases in their cars, and so would be able to secure immediate connection with towns and villages from any point on the road.

Essentially the scheme is not a new one. For a number of years telephones have been carried on the cars of some suburban trolley lines, stations being installed at the turn-outs so that the crews might get into

touch with the despatcher at any time when signals were insufficient. The idea also has had other applications. Its particular significance as advanced in this connection is that it opens the way to efficient public service in the future when motor travel over trunk-line highways shall have reached a magnitude and importance as yet undreamed of.



## CLOSE SCORES IN CHICAGO CONTEST

Even Technical Examination Failed to Break One Tie—Awards for Reliability, Economy and Tires.

It required the technical examination to evolve the winners of the Chicago Motor Club's five days 1,000 miles reliability contest, which finished on Friday last, 11th inst. In fact, in one class, that for the

here to the schedule. The final score was as follows:

## Stewart Speedometer Trophy.

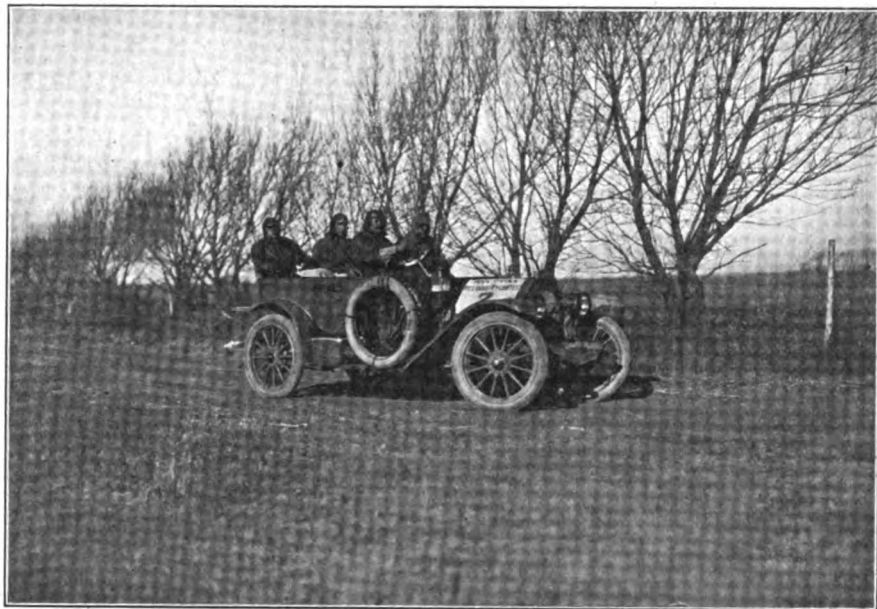
Driver and Car	Road Score	Tech.	Total
Williams, Haynes .....	0	2	2
Fundleburg, Imperial .....	0	5	5
Padley, Henry .....	0	6	6
Donnelly, Cino .....	0	13	13
Emery, Cunningham .....	1	22	23
Robbins, Abbott-Detroit...	1	34	35
Brown, Abbott-Detroit ...	3	38	41
Daubner, Halladay .....	57	6	63

Nutting, Midland.....	3	10	13
Aument, Halladay .....	0	25	25
Wells, Imperial.....	16	15	31
Halbert, Grout.....	0	39	39
Salisbury, Moline.....	35	31	66
Jones, Case.....	72	30	102
Holtzmler, Speedwell....	0	117	117

The following were penalized for withdrawing: No. 2, Haynes, 1,014 points; No. 103, Hupmobile, 1,021; No. 104, Case, 1,050; No. 115, Krit, 1,000; No. 116, Brush, 1,009; No. 118, Hupmobile, 1,000.

This standing gives the Fal car and the two Molines, driven by C. F. Van Sicklen, Vandervoort and Wicke, respectively, the Van Sicklen cup for roadsters; Williams's Haynes, the Stewart Speedometer trophy for touring cars, and Emery's Cunningham, the Standard Oil trophy for the car with the best percentage in the fuel economy test, while two Molines received in addition the Chicago Motor Club trophy, offered as a team prize to the two cars of the same make that obtained the best aggregate score.

The first leg of the run was to Moline, a distance of 193 miles, and the running proved much easier, than was anticipated, as the roads unexpectedly were found to be in very good condition. The noon stop at Rockford, 86 miles out, was reached by nearly all at 10 o'clock, and after a hearty meal, all were on the road again. The inhabitants of all the small towns en route were out in full force. At Warengo the town marshals were stationed at the turns to direct the drivers, and here speed



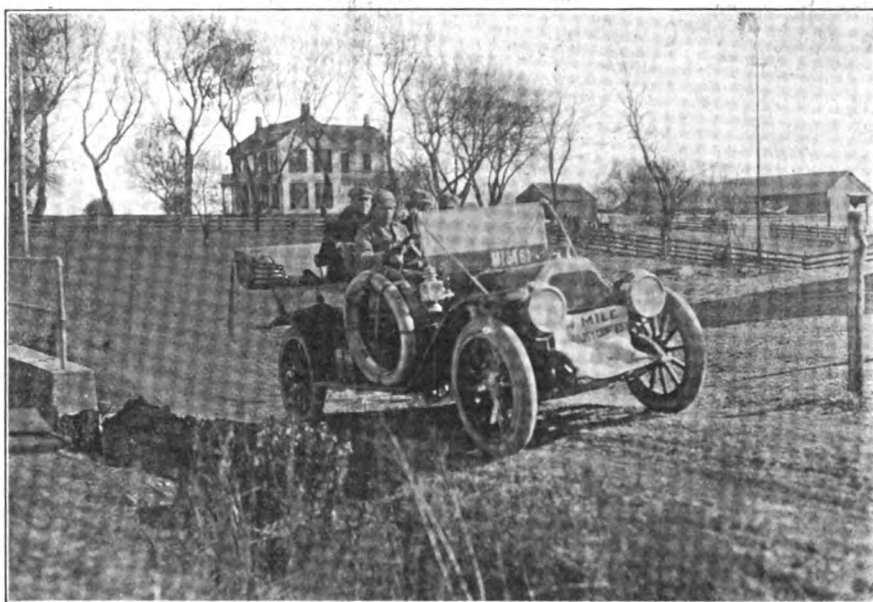
L. WILLIAMS (HAYNES) WHO WON THE STEWART TROPHY

Van Sicklen Trophy, not even the technical examination served the purpose, as three cars still remained tied and the honors were distributed with characteristic Chicago originality. Two Molines and one Fal were the cars that were "even up," and accordingly the manufacturers of the Moline will hold the trophy for two-thirds of a year and the makers of the Fal car one-third.

The H. P. Branstetter cup for the best tire performance went to the Michelin, which fitted to two of the competing cars, was penalized only fifteen points and had a percentage of 1.67. Penalties were inflicted on a basis of one point per minute per man for each tire stop and winner determined by computing the average penalizations per tire of each make entered. This was the first time that an attempt had been made to "keep tabs" on tires and evolve a winner.

The Standard Oil trophy, offered as an economy prize, was won by the Cunningham, driven by J. C. Emery, which, in addition to having a perfect road score, carried .459 pound for 1,050 miles on one ounce of gasoline.

Of the 29 contenders that started from Chicago on Monday, 7th inst., 24 survived the hard test, 14 of them finishing with perfect road scores, and only two of the penalties being inflicted for failure to ad-



EMERY (CUNNINGHAM) WHO CAPTURED THE ECONOMY TEST

Cassell, Glide .....	66	332	398
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## Van Sicklen Trophy.

Van Sicklen, Falcar.....	0	0	0
Vandervoort, Moline .....	0	0	0
Wicke, Moline .....	0	0	0
Wagner, Haynes.....	0	1	1
Monckheimer, Stav.-Chi...	0	2	2
Duis, Staver-Chicago.....	0	6	6
Bloomstrom, Lion.....	0	11	11

laws were not observed on the boulevard-like roads, as the town authorities gave the welcomed invitation to "beat it."

As was stated in last week's Motor World, there was not much in the way of incident connected with the first day's run, when three of the cars received road penalties, the Lewis Strang Case Car and the Leon Randall Hupmobile, in the Van Sick-

low class, and G. D. Brown's Abbott-Detroit in the Stewart trophy class. The Case drew 50 points for work done on a magneto, the Hupp one point for a carburettor adjustment and the Abbott 3 points for adjusting a push rod.

The route on the second day was from Moline to Quincy, a distance of 167 miles, over excellent roads as a whole, but up and down many hills and over enough rough places to make a good test for the cars.

The only accident of the day was the overturning of a touring car containing four motorists of Macomb who were attempting to keep up with the contestants for a time. Three of the four were doctors and the Red Cross began its work at once.

During the day three more touring cars were penalized, leaving six with perfect road scores. Irby's Haynes drew 14 points

drawal, and the technical committee charged the full 1000 points and accepted the withdrawal of each. They were Strang's Case, Habernicht's Krit, and Hearne's Hupmobile; the clutch in the Case going wrong, a front wheel of the Krit smashing and a brake rod of the Hupp breaking. Of the others in this class, the Brush lost 8 points and the Midland two, both penalties being for carburettor trouble.

As a result of the third day's run into Peoria, 205 miles, two more cars dropped from the perfect score list. In the touring class the Halladay had clutch and carburettor trouble and was charged with 52 points. Randall's Hupp and Well's Imperial did not reach the night control until late.

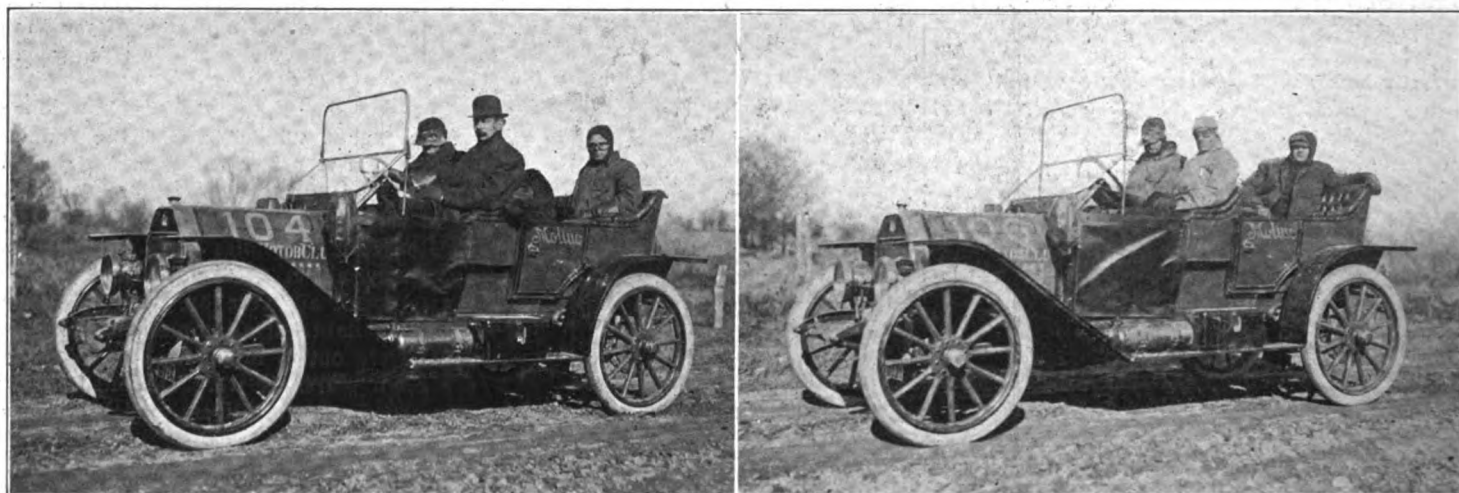
On the fourth day, the run was from Peoria to Champaign, 215 miles. As the worst hill of the entire route is just out-

inflicted for aid, but the time consumed counted in the schedule.

At the end of the run into Champaign, an error, found in the rules, took from Fundleburg's Imperial and Brown's Abbott-Detroit the perfect scores with which they were credited. That the penalties were not given before was due to a misunderstanding, the referee thinking that a stalled motor, if started again in one minute or less, was not cause for penalty.

When the observers' cards of the 24 remaining cars were checked up at the close of the fourth day, 15 were found to have perfect scores at the end of about 800 miles of road work.

The hardest part of the run in all respects was made on the final day, Friday; the weather was the coldest, the start the earliest and the roads the roughest.



VANDERVOORT AND WICKE IN THE MOLINE CARS THAT TIED FOR THE VAN SICKLEN TROPHY

for the breaking of a rear axle truss rod; Emery's Cunningham lost one point for tightening the cover of the gear box, and the Glide, driven by Cassell, lost 66 points for replacing the left front spring.

Among the roadsters, three saw enough penalties impending to cause their with-

side of Peoria and there is no chance to get a running start, the drivers were warned to use chains in case of rain. The rules were also read as to help for temporary relief if stalled on the hill, anything from a team of horses to a block and tackle being temporarily allowed. No penalty was

The cars left Champaign at 5:30 a. m. for the 237 mile run into Chicago, and at the finish four touring cars and ten roadsters had perfect road scores. In the touring car class competing for the Stewart trophy were the Cunningham, Haynes, Henry and Cino. In the runabout division for the Van Sicklen trophy were the Falcarr, Grout, two Molines, Lion, Halladay, Speedwell, two Stavers and Haynes.

Referee David Beecroft and technical experts F. E. Edwards, Berne Nadall and G. W. Gaidzik, of the Chicago Motor Club, worked all Saturday and Sunday examining the 22 contesting cars.

The penalties imposed by their technical examination were as follows:

George D. Brown, Abbott-Detroit: Broken mud apron, 5 points; loose oil cup, 1; two broken lamp brackets, 12; brakes, 20; total, 38 points.

J. C. Emery, Cunningham: Left rear spring seat bearing nut loose, 1; broken lamp bracket, 6; total, 7.

J. Daubner, Halladay: Lost mud apron nut, 1; lost nut on left front fender bracket, 1; lost bolt steering column clamp, 2; lost screw in clutch, 2; total, 6.

L. Williams, Haynes: Anti-rattler left rear brake lost, 2; total, 2.

George Padley, Henry: Loose fender, 2;

#### Summary in the Economy Contest.

Driver and Car.	Gasoline gallons.	Ounces.	Wt. of car.	P.C
Emery, Cunningham .....	83.80	10,726.40	4,930	.459
Van Sicklen, F-A-L .....	60.00	7,680.00	3,269	.425
Vandervoort, Moline .....	70.40	9,011.20	3,550	.393
Wicke, Moline .....	65.85	8,928.80	3,210	.380
Halbert, Grout .....	81.25	10,400.00	3,960	.380
Salisbury, Moline .....	76.40	9,779.20	3,590	.377
Nutting, Midland .....	80.00	10,240.00	3,680	.358
Wells, Imperial .....	67.60	8,652.80	3,070	.354
Padley, Henry .....	81.70	10,457.60	3,710	.354
Donnelly, Cino .....	88.85	11,372.80	4,000	.351
Robbins, Abbott-Detroit .....	78.00	9,984.00	3,430	.343
Duis, Staver .....	69.25	8,864.00	3,040	.342
Wagner, Haynes .....	73.90	9,459.20	3,170	.335
Bloomstrom, Lion .....	86.75	11,104.00	3,590	.320
Daubner, Halladay .....	95.25	12,192.00	3,950	.323
Fundleburg, Imperial .....	87.30	11,174.40	3,560	.318
Williams, Haynes .....	88.20	11,299.60	3,590	.317
Monckheimer, Staver .....	75.10	9,612.80	3,040	.316
Brown, Abbott-Detroit .....	84.85	10,860.80	3,410	.313
Jones, Case .....	107.10	13,708.80	3,630	.264
C. Aument, Halladay .....	76.25	9,760.00	2,540	.260
La Chappelle, Speedwell .....	107.00	13,696.00	3,510	.256

two loose spring clips, 2; lost floor board, 2; total, 6.

S. Fundleburg, Imperial: Loose body bolt, 1; loose rivet, 1; fan belt off, 2; loose nut radiator support, 1; total, 5.

Fred Cassell, Glide: Four loose frame rivets, 4; radiator beading loose, 1; water leak, 1; magneto and commutator controls broken, 10; no reverse, 25; lost spring seat bolt, 2; broken mud apron, 5; loose lock nut, 1; broken gear box, 250; brakes, 33; total, 332.

A. M. Robbins, Abbott-Detroit: Left front wheel bearing loose, 5; water leak, 1; mud apron fastener lost, 1; lamp bracket broken, 6; brakes, 21; total, 34.

Walter Donnelly, Cino: Water leak, 1; ignition, 5; brakes, 7; total, 13.

W. E. F. Nutting, Midland: Loose mud apron, 2; spring shackle shield off, 2; inoperable bonnet fastener, 1; broken spring leaf, 5; total, 10.

H. E. Halbert, Grout: Water leak, 1; lost motor bolt, 2; three bolts lost from vertical motor shaft housing, 6; clutch, 5; brakes, 25; total, 39.

F. Bloomstrom, Lion: Inoperative cut-out, 1; clutch, 5; brakes, 5; total, 11.

W. Jones, Case: Loose rear muffler support stud, 1; right rear fender iron broken, 0; brakes, 25; total, 32.

E. T. Wells, Imperial: Broken rear axle truss rod, 5; two broken terminals, 4; brakes, 6; total, 15.

J. Holtzmillier, Speedwell: Loose spring seating bolt, 1; loose mud apron bolt, 1; ignition, 5; brakes, 110; total, 117.

C. Aument, Halladay: Lost fan belt, 2; water leak, 1; broken ignition control, 10; two broken lamp brackets, 12; total, 25.

G. Monckheimer, Staver-Chicago: Loose hub cap, 1; loose motor bolt, 1; total, 2.

T. Duis, Staver-Chicago: Broken lamp bracket, 6; total, 6.

L. Wagner, Haynes: Muffler tail pipe clip sheared off, 1; total, 1.

E. G. Salisbury, Moline: Loose lock nut on strut rod, 1; broken strut rod, 25; inoperative fan, 2; broken fan, 1; radiator leak, 2; total, 31.

#### Tire Standing.

Make—	No. finished	Points penalty	P. C.
1—Michelin .....	2	15	1.67
2—Firestone .....	3	23	1.91
3—Goodrich .....	3	29	2.41
4—Diamond .....	10	103	4.82
5—Kelly-Springfield ..	2	102	12.07

#### Texas Track Bans Automobile Racing.

Neither automobile nor motorcycle racing will be again permitted on the State fair grounds track at Dallas, Tex. The series of accidents, two of them fatal, which occurred previous to and during the recent three days racemeet which formed one of the features of the State fair, "got on the nerves" of the park commissioners to such an extent that without a dissenting vote they adopted a resolution prohibiting all future contests of the sort.

#### Thanksgiving Meet on Guttenberg Track.

The only racemeet scheduled for Thanksgiving Day in the metropolitan district will be held at the old Guttenberg race track. O. D. Corbett, secretary of the Automobile Club of Hudson county, has planned the meet and it will be under his personal direction. Six races will be decided.

## ARIZONA'S REMARKABLE MEET

Contenders Comprised the Men and Cars that Had Raced Across the Desert—  
Hanshue Takes the Lion's Share.

Phoenix, Ariz., had a race meet on Thursday, November 10, that was out of the usual. It was held under the auspices of the Maricopa Automobile Club and constituted one of the attractions of the state fair then in progress, and it was unusual in that all the men and cars that competed were the same that just had finished what one of the Phoenix papers described as "the transcendent road event in all the history of the automobile world," in other words, the 480 miles race across the desert from Los Angeles to Phoenix and which, if not quite so grandiloquent as the Phoenix word-compounder described it, was yet very much of a race and undoubtedly one of the most trying and gruelling competitions which ever has been held.

The race meet at the fair grounds track was designed not only to subject the men and cars to further trials and to provide entertainment for the Arizonans, but also to enable the contestants to obtain further honors, not to mention the coin which goes with the honors. The program was so arranged that none of the competitors could corral all the honors and the cash, there being events for the cars according to their cubical capacity. Most of the men and cars acquitted themselves creditably, but Harris Hanshue, in an Apperson, who finished late in the desert race because of tire trouble, easily captured the lion's share of the spoils. He won the twenty-five miles race for cars of 301-600 cubic inches displacement, the fifteen miles free-for-all, the fifteen miles handicap and the one mile time trials, taking all of them "hands down." In the time trials, Hanshue negotiated the mile in 57½ seconds, fast going for a dirt track and for a hard-worked car.

Probably the most interesting contest was the fifteen miles race for the first three cars to finish in the Los Angeles-Phoenix race. They were the Kissel, Franklin Pope-Hartford. Hanshue, of course, was not eligible. The Pope-Hartford, driven by A. E. Gage, defeated the other two in easy style, and left them so far behind at the start that all the excitement was created by the fine fight between Herrick, Kissel, and Guy Irwin, Franklin, who ran nip and tuck from the fourth mile to the finish. Gage won in 16 minutes and 15½ seconds, and Irwin beat out Herrick in the Kissel, the victor in the desert race, by seven-tenths of a second, finishing in 16:30½.

The ten miles race for the smaller cars with piston displacement of 201-300 inches was won by Cliff McKeague driving a Durocar. There was some changing of the

lead until the third mile, after which McKeague stayed in front. His time was 10 minutes and 37 seconds.

In the ten miles handicap, L. M. Dull, Parry, was given 2½ minutes start, and R. Stearns 3½ minutes, while the McKeague Durocar started from scratch and although the latter made the fifth mile in one minute and ran a good race, he could not overcome the lead of the others; Dull winning. No time was taken. Summary:

Twenty-five miles for cars which participated in the Los Angeles-Phoenix race, with piston displacement of 301-600 cubic inches—Won by Harris Hanshue, Apperson; second, Will Sherriff, Rambler; third, Herrick, Kissel. Time, 26:55.

Ten miles for cars which participated in the Los Angeles-Phoenix race, 201-300 inches—Won by Cliff McKeague, Durocar; second, C. H. Bigelow, Mercer; third, A. E. Gage, Pope-Hartford; fourth, L. M. Dull, Parry. Time, 10:37.

Fifteen miles free-for-all for all cars in the Los Angeles-Phoenix race—Won by Harris Hanshue, Apperson; second, A. E. Gage, Pope-Hartford; third, Stearns, Ford. Time, 16:14.

Fifteen miles for the first three cars to finish Los Angeles-Phoenix race—Won by A. E. Gage, Pope-Hartford; second, Guy Irwin, Franklin; third, Herrick, Kissel. Time, 16:15½.

Ten miles handicap—Won by Dull, Parry (3½ min.); second, Stearns, Ford (3½ min.); third, McKeague, Durocar (scratch). No time taken.

Fifteen miles handicap—Won by Hanshue, Apperson (scratch). Time, 14:49.

One mile time trials—Won by Hanshue, Apperson, time, 57½; second, McKeague, Durocar, 1:00½; third, C. H. Bigelow, Mercer, 1:02; fourth, Dull, Parry, 1:08½; fifth, Sheriff, Rambler, 1:10.

#### Newburgh Sees Racing and a Spill.

The inhabitants of the old Hudson river town of Newburgh, N. Y., had an opportunity on Saturday last, November 12th, of witnessing some more or less thrilling automobile races, which were held on an old one-half mile dirt track, and they also had occasion to gasp because of an accident in the 25 miles race. At the 12 miles post Joe Judge, in a Pope-Hartford, blew out a front tire, causing a wheel to collapse and the car to overturn. Neither the driver nor the mechanic were injured seriously, though the mechanic was pinned under the car. Chuck Martin, driving a Stearns belonging to Senator John B. Rose, won the race in 39:15. A 10 miles race with but two starters was won by Jack Eager (Overland), with Worcester (Buick) second. Time, 17:30½. John Q'Hearn, piloting a Rambler, won the five miles race, completing the 10 circuits in 11:31. A five miles race for cars owned by Elks was won by Charles Burant in a Rambler. His time was 8:20.

## DE HYMEL KILLED AT SAN ANTONIO

South's Most Famous Driver Meets Death  
On Native Soil—Had "Cleaned Up"  
in First Day's Racing.

The race meet held on the Fair Grounds track in San Antonio, Tex., on Saturday last, 12th inst., was brought to a sudden termination when, in the last race of the day, an accident cut short the meteoric career of the best known racing driver in the South, Alfred De Hymel, known in racing circles as "Tobin" De Hymel. When the accident happened he was at the wheel of his Stoddard-Dayton in a twelve miles handicap race which had seven starters. With six left in the race the big car, with victory in sight, crashed into a bank while making fully sixty miles an hour, and turned completely over. De Hymel's body was badly crushed and he died while being carried into a nearby hospital. When De Hymel flashed past the grandstand just before the accident a number of people noticed that one front wheel was wobbling, but he was past before he could be warned and before he came around again he came to grief. The wobbling wheel collapsed and from the nature of some of his injuries it appeared that his chest had been crushed before he was thrown out of the car.

The three nine miles races which were run off before the accident were marred by the withdrawal of several cars as results of arguments. In the first race the Abbott-Detroit team objected to competing with cars of somewhat larger piston displacement and were allowed to withdraw and the Stoddard entries were withdrawn in another race. But for Meleun and Clarke those races would have been dismal failures, but as it was, there was some interest.

In the third race Clarke attempted to run on batteries, his magneto being out of order, but after one lap his Cutting began missing and he finished a poor second to Meleun, Buick.

The first race was won by J. Geary, driving a small Stoddard, DeHymel in the larger Stoddard holding back and finishing second. Meleun, Buick, was third.

The forty-five miles free-for-all was the feature event of the day. DeHymel, Stoddard; Meleun, Buick; Slagle, Cutting; and Plummer and Dunn in Marions started.

There was a heated contest between the Buick and Stoddard from the start, until DeHymel was forced to quit at the end of the fifteenth lap by tire trouble. Shortly after the Buick was also forced off by the white flag because of a thrown tire tread and fear of serious mishap. While the Buick was changing tires, Slagle, in the Cutting, gained four laps and was never headed. The summary:

Saturday, November 12.

Nine miles, Class E, 300 cubic inches and under.—Won by James Geary, Stoddard-Dayton; second, Tobin DeHymel, Stoddard; third, Fred Meleun, Buick. Time, 9:32½.

Nine miles, Class B, Div. 3c, 450 cubic inches and under.—Won by George W. Clark, Cutting; second, W. Dunn, Marion; third, Plummer, Marion. Time, 9:53.

Nine miles, Class E, 450 cubic inches and under.—Won by Meleun; second, Clark, Cutting. Time, 9:00.

Forty-five miles, free-for-all, Class D.—Won by H. E. Slagle, Cutting; second, Meleun, Marquette-Buick; third, Dunn, Marion. Time, 49:02½.

Sixteen miles, Class E, handicap, called off because of fatal injury to Tobin DeHymel.

On Thursday, the 10th inst., which was the first day of the racemeet held by the San Antonio Automobile Club, the unfortunate De Hymel made a characteristic "clean-up." He was eligible to but three of the six events, and he had no trouble in winning all of them as he pleased. Those which he annexed were the one mile time trials Class D, the 30 miles free-for-all, and the nine miles, Class C.

Of the remaining three events two of them, the 12 miles Class C and the nine miles Class B, were captured in easy style by Mortimer Roberts, driving an Abbott-Detroit. The other one had but two contestants, as shortly before the start an accident to Leo De Hymel's Velie left Meleun, Buick, and Clarke, Cutting, to fight it out. Meleun won, covering the nine miles in eight minutes 56½ seconds.

A comedy was added to the program in the shape of a 4½ miles truck race between a Brush, a Gramm and the truck of a local farm. The Buick finished first without difficulty, with the Gramm second. The summary:

Thursday, November 10.

Twelve miles, Class C, 161-230 inches piston displacement.—Won by M. Roberts, Abbott-Detroit; second, Meleun, Buick; third, Tune, Abbott-Detroit. Time, 12:48.

Nine miles, Class C, 301-450 inches.—Won by Meleun, Marquette-Buick; second, Clarke, Cutting. Time, 8:56½.

One mile time trials, Class D.—Won by De Hymel, Stoddard-Dayton Fifty; time, 57; second, De Hymel, Stoddard-Dayton Forty; time, 1:02; third, Roberts, Abbott-Detroit; time, 1:02½; fourth, Clarke, Cutting; time, 1:04½; fifth, Tune, Abbott-Detroit; time, 1:05; sixth, Dunn, Marion; time, 1:11½.

Nine miles, Class B, 300 inches and under.—Won by Roberts, Abbott-Detroit; second, Clarke, Cutting; third, Tune, Abbott-Detroit. Time, 9:43.

Thirty miles free-for-all.—Won by De Hymel, Stoddard-Dayton; second, Meleun,

Marquette-Buick; third, Clarke, Cutting. Time, 31:14.

Nine miles, Class C.—Won by De Hymel, Stoddard-Dayton; second, Clarke, Cutting. Time, 9:54.

### Quakers Start Electric "Guessability."

On Friday last, 11th inst., Philadelphia was the scene of another of the so-called "roadability runs," which originated in that city of brotherly love and other things. Although the run was the usual guessing contest, disguised by the more dignified title, it was unlike any other that has ever been held in Philadelphia, or anywhere else, in that it was confined exclusively to electric vehicles. The run was promoted by the Philadelphia North American and was taken very seriously, a confetti car preceding the parade and motorcycle policemen gravely guarding the route. The distance covered, 50 miles, was traversed in the city and its suburbs. Of the 39 guessers who started, 36 finished the run, Mrs. B. L. Townsend with a guess of 4:14:20 coming nearest to the secret time, which was 4:24:24½. Mrs. Townsend did not drive her car, a Baker electric, this service being performed by a mere man, but as she had entered the car she received the first prize, a gold chatelaine bag valued at \$100. The second prize in the women's division, a \$50 silver chatelaine bag, went to Mrs. E. V. Stratton, who drove a Studebaker. Dr. C. W. Haughton captured first honors in the men's division with a Studebaker. He received a gold loving cup valued at \$100. Harry Peyton guessed well enough to annex the second prize in this section. He drove a Waverley and got a \$50 silver loving cup.

### Tragedy Precedes the Grand Prize Race.

Although the actual running of the Savannah races was free from fatalities, death took its toll from the drivers assembled for the meet. On Thursday last, November 10th, W. H. Sharp, driver and designer of the car bearing his name, and Albert Fuchs, his mechanic, were thrown from the car in a practice spin over the course. Fuchs was dead when eye-witnesses of the accident reached his side, his skull being fractured by striking a log in the road. Sharpe was unconscious and was removed to a hospital, where he died on Tuesday, November 15th.

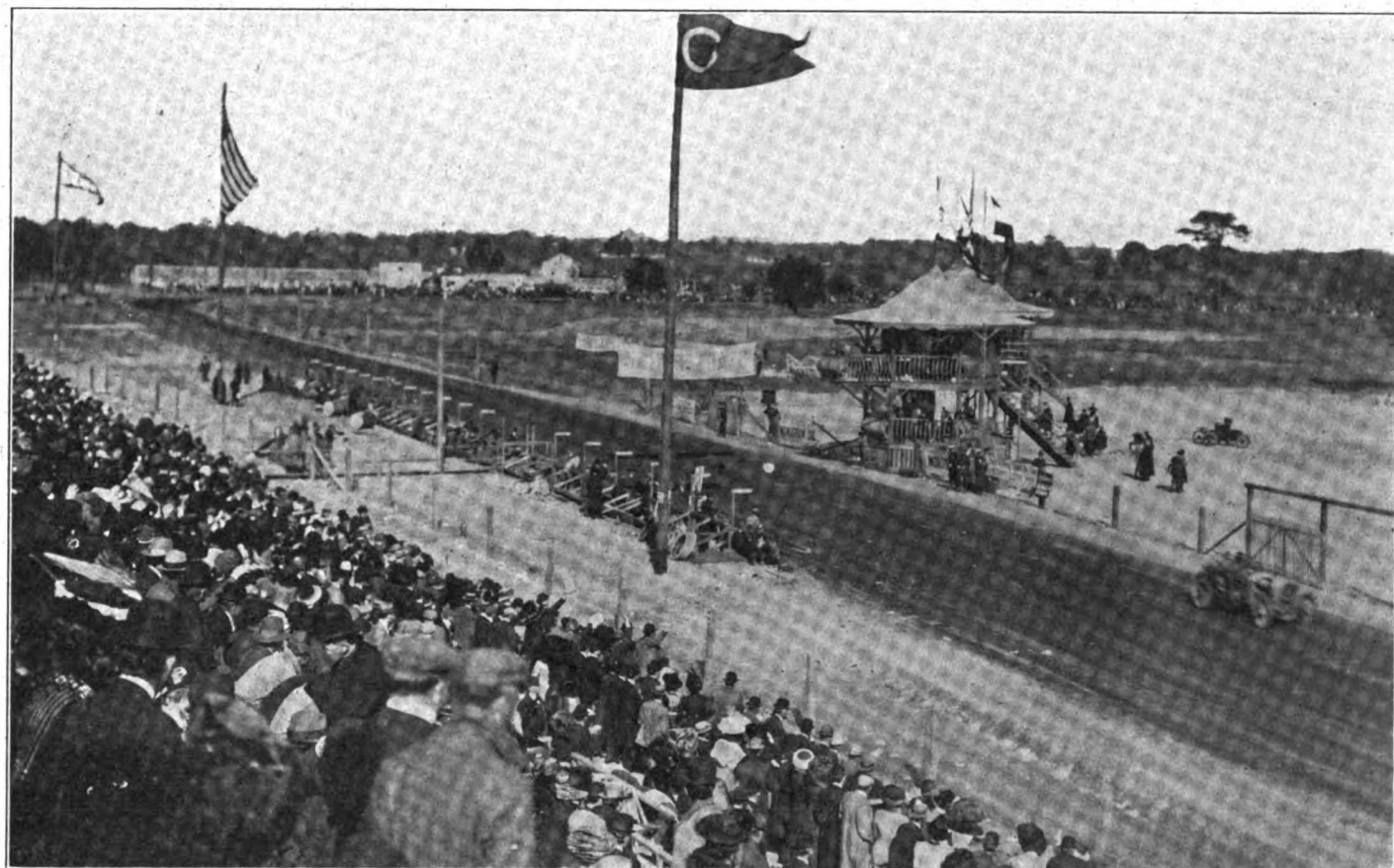
### Oldfield Cuts Some Didoes in Louisiana.

Barney Oldfield has put the Shreveport (La.) fair grounds track "in bad." Despite his disqualification by the A. A. A., he and his outlawed Benz car were permitted to cavort there on the 10th inst. and of course Oldfield earned his fee by "establishing" one of his customary "records." He was timed a mile in 53½ seconds, which was announced as the "Southern circular track record." He also ran around the track twice and thereby created a local record for two miles.



# Bruce-Brown Upsets the "Talent" at Savannah

American, Driving Big German Car, Captures Grand Prize in Eye-lash Finish—Defeats Imported Veterans and Sets New Mark—Italy Stumbles with Victory in Sight—American Cars too Small but Burman "Gets in the Money."



GENERAL VIEW AT STARTING AND FINISHING POINT OF THE GRAND PRIZE RACE

It was a reasonably safe bet that Germany would figure in the forefront of the Grand Prize race of the Automobile Club of America which was run near Savannah Ga., on Saturday last, 12th inst. She was represented by far the biggest and most powerful cars and by two of the most famous and most seasoned drivers that ever sat behind steering wheels; and as the world already knows, it was a German car, the Benz, which won that one-time spite race. But it was not one of the famous and seasoned drivers that steered the car to victory, neither was he a German importation. He is David Bruce-Brown, an American, despite his hyphenated name, and quite unlike the average man who figures as a man who drives for hire. For Brown was born with a silver spoon in his mouth and was reared accordingly. He has ample means of his own and if the desire for the coin that constitutes the victor's reward plays any considerable part in his calculations the fact is very well concealed

Rather does he seem to engage in the dangerous sport for the very love of it.

On Saturday last he negotiated the 415.2 miles of Georgia road in 5 hours, 53 minutes, 5.75 seconds, an average speed of 70.55 miles per hour, which is the best long-sustained speed ever made on American roads and is a performance which compares favorably with Nazzaro's average of 74.3 miles made in the Florio cup race in Italy in 1908. Bruce-Brown's triumph was won almost by an eyelash. Less than two seconds behind him thundered Hemery, also in a big Benz—both the man and the car having been imported especially for the race. The other representative of Germany, Willie Haupt, literally was nowhere. On the 13th lap he sideswiped a tree, broke a wheel, overturned and was out of it. Italy was sorely tried and sorely humbled. Three times victory seemed within its grasp, for as often had its representatives, Wagner, Nazzaro and De Palma, shown in front, but never were they able to stay

there. De Palma, an American, although driving a foreign car, was in the lead with but two laps to go and looking all over a winner when engine trouble overcame him. In fact, excepting Hemery, it was a combination of foreign car and American driver that proved the best combination, so far as the "invaders" were concerned.

If the American drivers proved the peers if not the superiors of the foreign cracks, American cars were hopelessly outclassed in respect to power, and that one of them, Robert Burman's Marquette-Buick, was able to finish, third, but 18 minutes behind the winner, is no small plume in Uncle Sam's headgear.

The story is best told by a comparison of the piston displacement of the cars involved. The two Benzes, which finished first and second, each had a displacement of 920 cubic inches. The Marquette-Buick, which finished third, was of but 593.7 cubic inches displacement, and it was the biggest of the American cars, which tapered

## Summary of the Grand Prize Race, Unrestricted, 415.2 Mile

Driver.	Name of Car.	Bore.	Stroke.	Displacement.	Lap— Miles—	1 17.3	2 34.6	3 51.9	4 69.2	5 86.5
David Bruce-Brown	Benz	6.1	7.87	920	Elapsed time....	14:28	28:49	42:57	57:12	71:14
					Position .....	4	4	4	3	3
					Time of lap....	14:28	14:21	14:08	14:15	14:14
Victor Hemery	Benz	6.1	7.87	920	Elapsed time....	14:18	28:09	41:59	55:50	69:50
					Position .....	1	1	1	1	1
					Time of lap....	14:18	13:51	13:50	13:51	13:51
Robert Burman	Marquette-Buick	6.00	5.25	593.7	Elapsed time....	15:58	30:38	46:33	63:19	78:58
					Position .....	10	9	9	9	9
					Time of lap....	15:58	14:40	15:55	16:46	17:13
Ralph Mulford	Lozier	5.375	6.00	544.6	Elapsed time....	20:23	37:43	53:42	69:53	85:53
					Position .....	15	15	15	15	15
					Time of lap....	20:23	17:20	15:59	16:11	15:53
Joe Horan	Lozier	4.625	5.50	369.6	Elapsed time....	16:27	32:30	48:34	64:34	80:34
					Position .....	11	11	11	11	11
					Time of lap....	16:27	16:03	16:04	16:00	16:00
Ray Harroun	Marmon	4.5	5	318.1	Elapsed time....	16:35	32:53	49:05	65:05	81:05
					Position .....	12	12	12	12	12
					Time of lap....	16:35	16:18	16:12	16:00	16:00
Ralph DePalma	Fiat	5.11	7.48	615.5	Elapsed time....	15:03	30:14	45:23	60:10	74:53
					Position .....	8	8	8	7	7
					Time of lap....	15:03	15:11	15:09	14:47	14:47
Charles Basle	Pope-Hartford	4.75	5.5	389.9	Elapsed time....	16:38	32:48	52:14	68:37	84:37
					Position .....	13	13	14	14	14
					Time of lap....	16:38	16:10	19:26	16:23	16:23
Felice Nazarro	Fiat	5.11	7.48	615.5	Elapsed time....	14:31	29:09	43:28	57:33	71:33
					Position .....	6	6	5	4	4
					Time of lap....	14:31	14:38	14:19	14:05	13:59
Louis Wagner	Fiat	5.11	7.48	615.5	Elapsed time....	14:21	28:24	42:20	56:44	71:04
					Position .....	3	2	2	2	2
					Time of lap....	14:21	14:03	13:56	14:24	14:24
Willy Haupt	Benz	6.1	6.3	736	Elapsed time....	14:30	28:56	43:32	57:37	71:37
					Position .....	5	5	5	5	5
					Time of lap....	14:30	14:26	14:36	14:05	14:05
Harry F. Grant	Alco	4.72	5.51	565.4	Elapsed time....	15:53	31:25	46:49	62:23	77:23
					Position .....	9	10	10	8	8
					Time of lap....	15:53	15:32	15:24	15:34	15:34
A. Chevrolet	Marquette-Buick	6.00	5.25	593.7	Elapsed time....	14:19	28:44	42:54	57:20	71:20
					Position .....	2	3	3	10	10
					Time of lap....	14:19	14:25	14:10	20:26	15:34
Louis A. Disbrow	Pope-Hartford	4.75	5.5	389.9	Elapsed time....	17:13	34:02	50:17	66:32	81:32
					Position .....	14	14	13	13	13
					Time of lap....	17:13	14:49	16:15	16:15	17:15
Joe Dawson	Marmon	4.5	6.5	381.7	Elapsed time....	14:59	29:34	44:05	58:35	72:35
					Position .....	7	7	7	6	6
					Time of lap....	14:59	14:37	14:31	14:30	14:30

down to 318.1 cubic inches in the case of the Marmon driven by Harroun.

The German car needed the victory, too for in both the Vanderbilt cup race and the race for the Fairmount Park trophy, although numerously represented, it had signally extinguished itself. Smaller Benzes were used in those races, but at that they were larger than most of the American contenders, but still were they slowed or snuffed out by one thing or another. Bruce-Brown himself drove one in the Vanderbilt, but he was more than 20 minutes behind when Grant drove his Alco to victory.

The race was started at 9 a. m., the contenders being sent away in the following order: 1st, Arthur Chevrolet, Marquette-Buick; 2d, Ralph Mulford, Lozier; 3rd, Charles Basle, Pope-Hartford; 4th, Harry F. Grant, Alco; 5th, Joe Dawson, Marmon; 6th, Victor Hemery, Benz; 7th, Felice Nazarro, Fiat; 8th, Joe Horan, Lozier; 9th, L. A. Disbrow, Pope-Hartford; 10th, Ray Harroun, Marmon; 11th, David Bruce-Brown, Benz; 12th, Louis Wagner, Fiat; 13th, Robert Burman, Marquette-Buick; 14th, Willy Haupt, Benz; 15th, Ralph De Palma, Fiat.

The non-starters were W. A. Sharp, Sharp-Arrow; W. A. Roebing, 2d, Roebing-Planche; Joe Matson, Simplex; Hugh Hughes, Marquette-Buick; the first two of whom had been eliminated by accidents previous to the race.

Most of the officials and distinguished men of Savannah, and quite a few from

other parts of the state witnessed the start Governor Brown himself was among the number. Spare of build, and serious of mien, with a growth of whiskers with which the winds of many years seem to have taken undue liberties, the governor was a picturesque figure and was made to play several picturesque parts. He himself fired

## Summary of Savannah Trophy Cup Race, 276.8

Driver.	Name of Car.	Bore.	Stroke.	Displacement.	Lap— Miles—	1 17.3	2 34.6	3 51.9	4 69.2	5 86.5
J. Dawson	Marmon	4.359	5.00	298.4	Elapsed time....	16:20	33:30	49:11	64:51	80:31
					Position .....	1	1	1	1	1
					Time of lap....	16:20	17:10	15:44	15:44	15:44
W. Roebing	Mercer	4.375	5.00	300.7	Elapsed time....	17:19	33:55	50:33	66:53	83:13
					Position .....	4	3	3	3	3
					Time of lap....	17:19	16:36	16:44	16:44	16:44
H. Hughes	Falcar	4.125	5.250	280.6	Elapsed time....	18:01	35:32	53:00	69:51	86:42
					Position .....	6	5	5	5	5
					Time of lap....	18:01	17:31	17:22	17:22	17:22
F. Heineman	Marmon	4.5	4.5	286.3	Elapsed time....	16:59	36:12	53:00	69:51	86:42
					Position .....	2	6	6	6	6
					Time of lap....	16:59	19:13	30:11	30:11	30:11
F. Gelnow	Falcar	4.125	5.250	280.6	Elapsed time....	17:12	33:52	50:33	66:53	83:13
					Position .....	3	2	2	2	2
					Time of lap....	17:12	16:40	16:40	16:40	16:40
W. H. Pearce	Falcar	4.125	5.250	280.6	Elapsed time....	17:40	34:50	51:55	68:55	85:55
					Position .....	5	4	4	4	4
					Time of lap....	17:40	17:10	17:04	17:04	17:04

## Contested at Savannah, Ga., Saturday, November 12, 1910

6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
103.8	121.1	138.4	155.7	173	190.3	207.6	224.7	242.2	259.5	276.8	294.1	311.4	328.7	346	363.3	380.6	397.9	415.2
85:59	100:26	114:46	129:04	143:18	163:48	178:01	192:02	206:05	222:15	236:32	250:37	264:52	279:08	293:59	308:26	323:16	337:53	353:05.75
5	4	4	3	3	6	6	3	3	3	3	3	2	2	2	2	2	1	1
14:26	14:27	14:20	14:18	14:14	20:30	18:14	14:01	14:03	16:10	14:17	14:05	14:15	14:16	14:51	14:27	14:50	14:37	15:12
83:49	98:04	112:11	131:24	146:46	161:16	175:48	193:26	209:33	223:40	237:54	252:21	266:30	281:30	295:36	310:24	324:50	339:12	353:07.17
1	1	1	4	5	4	5	5	4	4	4	3	3	3	3	3	3	2	2
14:00	14:15	14:07	19:13	15:22	14:30	14:32	17:38	16:07	14:07	14:14	14:27	14:09	14:30	14:36	14:48	14:26	14:22	13:54
93:11	109:25	125:16	139:40	156:21	172:42	186:22	202:13	216:39	231:06	248:56	263:41	278:09	296:05	313:22	327:56	342:28	357:00	371:23.49
7	8	8	8	8	7	7	6	5	5	5	5	5	4	4	4	4	3	3
14:51	16:14	15:51	14:24	16:41	16:21	13:40	15:51	14:26	14:27	17:50	14:45	14:28	17:56	17:17	14:34	14:32	14:32	14:23
101:49	118:24	133:46	149:03	164:31	180:06	195:49	213:08	228:44	244:24	260:06	275:47	291:45	307:43	323:34	339:09	354:39	370:27	386:12.68
14	14	13	11	11	10	10	9	8	7	7	7	7	6	5	5	5	4	4
16:02	16:35	15:22	15:17	15:28	15:35	15:43	17:19	15:36	15:40	15:42	15:41	15:58	15:58	15:51	15:35	15:30	15:48	15:45
96:49	113:07	129:19	145:15	161:15	177:15	193:19	209:34	228:44	244:49	261:00	277:14	293:25	309:36	325:55	342:04	358:08	374:09	390:02.72
10	10	10	10	9	8	8	7	8	8	8	8	8	7	7	7	7	6	5
16:07	16:18	16:12	15:56	16:00	16:00	16:04	16:15	19:10	16:05	16:11	16:14	16:11	16:11	16:19	16:09	16:04	16:01	15:53
96:54	112:59	129:02	145:14	161:24	177:33	183:41	210:43	226:47	242:32	258:22	274:12	290:09	306:11	323:48	340:52	357:29	374:03	390:22.22
11	9	9	9	10	9	9	8	7	6	6	6	6	5	6	6	6	5	6
15:49	16:05	16:03	16:12	16:10	16:09	16:08	17:02	16:04	15:45	15:50	15:50	15:57	16:02	17:37	17:04	16:37	16:34	16:19
89:34	104:10	118:31	132:56	147:10	161:27	175:36	189:57	205:50	220:34	235:15	249:44	264:01	278:17	292:32	306:36	321:24		
6	6	6	6	6	5	4	2	2	2	2	1	1	1	1	1	1	1	Cracked cylinder.
14:40	14:36	14:21	14:25	14:14	14:17	14:09	14:21	15:53	14:44	14:41	14:29	14:17	14:16	14:15	14:04	14:48		
101:12	117:25	134:06	156:09	172:44	189:15	205:48	222:14	238:40	255:26	272:08	288:51	333:10						
13	13	14	12	12	11	11	10	9	10	10	9	9						Seized piston.
16:13	16:13	16:41	22:03	16:35	16:31	16:33	16:26	16:26	16:46	16:42	16:43	44:19						
85:14	98:56	112:57	129:04	143:02	157:31	175:04	189:13	203:20	218:00	232:49	250:14	274:53						Broke chain.
2	2	2	2	2	2	2	1	1	1	1	2	4						
13:51	13:42	14:01	16:67	13:58	14:29	17:33	14:09	14:07	14:40	14:49	17:25	24:39						
85:31	99:58	114:05	128:11	142:17	161:06	175:09	192:03	220:24	245:40	261:43								Car overturned.
3	3	3	1	1	3	3	4	6	9	9								
14:26	14:27	14:07	14:06	14:06	19:29	13:53	16:54	28:21	25:16	16:03								
85:33	102:07	116:04	129:54	143:37	157:20	171:09												
4	5	5	5	4	1	1												
13:46	16:34	13:57	13:50	13:43	13:43	13:23												
93:27	108:54	124:24	139:51	155:23														
8	7	7	7	7														
15:32	15:27	15:30	14:27	15:32														
96:37	115:07	130:18																
9	11	11																
17:37	18:30	15:11																
100:46	117:17	133:31																
12	12	12																
16:30	16:31	16:14																

e crank shaft.

the starting pistol and the camera caught him in the act. His Honor's appearance, as the photograph shows, suggested that he was performing almost one of his sacred duties. Though the governor fired the pistol, Fred Wagner, of New York, sometimes styled the "Starter's Trust," shouted the word "Go" and accompanied it with his

usual hearty slap on each contestant's back.

The day was more or less of a holiday in the vicinity of Savannah and as a result a great crowd witnessed the race. Some rapid-fire statisticians estimate that 200,000 persons were present, but despite the maximum, figures do sometimes lie. The estimate is over-generous. The grand stand which

seats approximately 20,000 people was comfortably filled, but there was room for more than one more, and around the course of 17.3 miles, which was well guarded by militiamen, the spectators formed only a thin fringe and the state soldiery had little trouble in preserving order and keeping the course clear.

There were fewer motor cars in evidence than some of the visitors expected to see, but no lack of negroes. Savannah is in the "black belt" and even though many of them scarcely knew what it was all about, it was a great day for the darkies and their interest was keen if not intelligent.

Chevrolet, first away, was first to return to the grand stand. He had made the round of 17.3 miles in 14.19, but he was not first in point of time. Hemery, sixth in order of starting, was the real leader, but at that, and despite the enormously larger car that he was driving, the German had been able to gain but one second on the American representative. On the next lap, Hemery was still ahead, but Wagner had displaced Chevrolet in the second position. This order remained for the succeeding lap, Bruce-Brown, the ultimate winner, then being in

## Lap, 231-300 Class, Friday, November 11, 1910

4	5	6	7	8	9	10	11	12	13	14	15	16
69.2	86.5	103.8	121.1	138.4	155.7	173	190.3	207.6	224.7	242.2	259.5	276.8
65:48	82:10	98:40	115:08	131:38	148:19	164:58	181:37	198:02	214:33	230:48	247:08	263:39
1	1	1	1	1	1	1	1	1	1	1	1	1
16:33	16:22	16:30	16:28	16:30	16:41	16:37	16:39	16:25	16:31	16:15	16:20	16:31
67:08	83:32	100:02	116:29	134:51	157:42	168:13	184:46	201:26	218:03	234:25	250:47	275:25
2	2	2	2	3	2	2	2	2	2	2	2	2
16:32	16:24	16:30	16:27	18:22	16:51	16:31	16:33	16:40	16:37	16:22	16:22	24:38
70:52	88:29	105:59	123:38	141:13	158:48	176:10	193:39	211:08	228:29	246:05	268:35	286:11
5	5	5	5	5	3	3	3	3	3	3	3	3
17:51	17:37	17:30	17:39	17:35	17:35	17:22	17:29	17:29	17:21	17:36	22:30	17:36
95:23	112:02	128:39	145:08	161:39	178:16	194:51	211:31	228:07	244:44	261:36		
6	6	6	6	6	4	4	4	4	4	4		
28:57	16:39	16:37	16:39	16:31	16:37	16:35	16:40	16:36	16:37	16:52		
67:11	83:49	100:28	117:01	133:40								
3	3	3	3	2								
16:39	16:38	16:19	16:33	16:39								
69:01	86:01	105:55	123:05	140:10								
4	4	4	4	4								
17:07	17:00	19:54	17:10	17:05								

Broke tie rod.

Broke axle.

# All the Cars that Finished Behind the 1911 Model \$1000 E-M-F "30" on the Atlanta Speedway and Savannah Road Race sell for \$1500 or more—that's the Best Part of this Story.

**Here's a Lettergram** that tells of the latest E-M-F record: "The one element of international character developing in the Savannah Road racing was the contest between the Lancia, made in Italy, and the E-M-F "30," which represented Detroit, and was the only car of the American contingent which seemed able to give the foreigner an argument.

**The E-M-F Kept Close** on the Lancia's heels for eight of the eleven laps. Driver Witt then stopped to take on oil, a precautionary measure as it proved. The Lancia's immense tanks allowed her to continue without a stop. This made it impossible for the American car to close the gap, although the E-M-F averaged 55.28 for the 190.3 miles, a clip faster than that of the winner in any American road race of that length in the annals of motor racing. The Lancia is a special built racing car equipped with a multitude of adjustments and requiring an expert driver. Priced at a figure more than three times as high as the E-M-F, it needed all its speed to win.

**Witt in the \$1000 E-M-F** tore off the fastest lap of the race, 17.05, unofficially timed, and did not falter in the least at any stage of the race. The other contenders in the race selling for \$1500 or more, did not figure, except as demonstrations of consistency of lower speeds. A gap nearly 15 minutes separated the cars finishing second from the one finishing third in this event."

**The First Car Home in the Atlanta Race**—and to establish a new world's record—and the same car which starred at Savannah—was produced by the company which was the first to place on the markets of the world a genuine, practical car of the real touring type at a price within the reach of the man of average means.

**Others Have Always Been Behind.** Progress in manufacturing at the big E-M-F Company's plants has gone hand in hand with the quality of its product.

**A Practical Demonstration** is always given in a race and the E-M-F Company has always been glad to give it. It wants to take this occasion to impress on the mind of the public a number of logical lessons to be drawn from this demonstration.

**No E-M-F "30" Was Ever Built Solely for Speed.** The ability to circle the Atlanta speedway and Savannah road course faster than any car of its class is only an incident to the manufacture of a high-quality motor car, as the E-M-F Company sees it.

**There Are No E-M-F "30" Racers.** Any E-M-F "30" that the factory in Detroit ever built—there are 20,000 of them in the hands of satisfied owners—would go just as



fast as the car that set the world's record—about 65 miles per hour. That must be the case. It's an essential of the E-M-F Company's system of manufacture.

**All E-M-F "30's" Are Fast**—Just as fast as Witt's "Polar Bear." They are made by automatic machinery—machinery, the purchase of which is possible only to a company that builds cars in large lots and can consequently afford it, saving a large labor expense that would otherwise make the car unprofitable, if sold at twice the price in smaller quantities.

**E-M-F Durability** is something we can't show only in a race, however. All the South knows, though, that our old E-M-F "30" "Bullet" has been run 60,000 miles and is as good as when she was shipped—the first E-M-F "30" that went south of the Ohio.

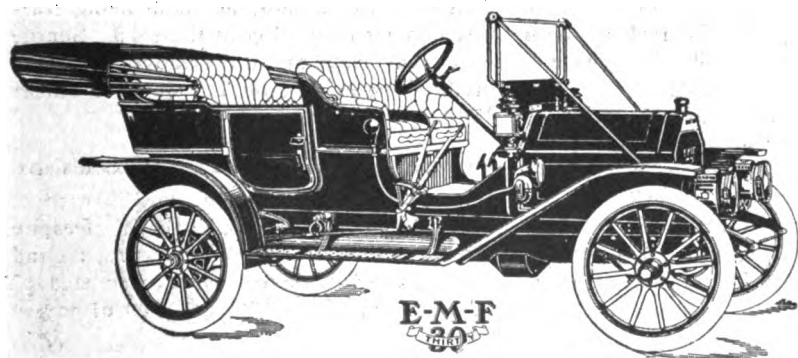
**We Agree with a Competitor**—who sells automobiles at a higher price than we—who advertised "A 200-mile road race at sustained speed of 40 to 80 miles per hour puts a car to a severer test than the average owner could put it to in a whole year's use."

**Because This Proves the Life** of an E-M-F "30" car—the "Bullet" used as a racer and demonstrator at Atlanta has a record of 60,000 miles—most of which was run on high speed at road races. Our 1909 Glidden Tour pathfinder has run over 50,000 miles and is today in active service as a "pick up" between our various plants in Detroit. These are the records of just two of 20,000 E-M-F "30" cars in daily service all over the country in the hands of satisfied owners.

**E-M-F Economy** is something we want to demonstrate any time we have an opportunity. The E-M-F "30" is the best balanced car in the world. It shows in the small expense of tire maintenance. Light weight makes for small gasoline consumption, just as it does for speed. The most ingenious, if not the most simple lubricating system in existence helps E-M-F "30" owners to save on their oil bills.

**And the Biggest E-M-F Economy** is in the first cost. You can buy a duplicate of Witt's race-winner with the added equipment of five-passenger touring body, for \$1,000. Not a car in the field that finished behind the E-M-F "30" on the Atlanta Speedway could be purchased, in stock form, for less than \$1,500.

**Best and Cheapest!** It's an E-M-F "30." Price and performance simply can't be denied. They are in the records.



Standard 1911 Model E-M-F "30" Touring Car—\$1,000

Change the body equipment and it's a racer, just like Witt's with which he won at the Atlanta Speedway and Savannah Road Race.

## E-M-F COMPANY

### Automobile Manufacturers

### DETROIT, MICH.

#### E-M-F BRANCHES:

New York, N. Y.  
Chicago, Ill.  
Philadelphia, Pa.  
San Francisco, Cal.  
Boston, Mass.  
Atlanta, Ga.  
Sacramento, Cal.  
Omaha, Neb.  
Pittsburg, Pa.  
Cleveland, Ohio.  
Columbus, Ohio.

Los Angeles, Cal.  
Boise, Idaho.  
Memphis, Tenn.  
St. Louis, Mo.  
South Bend, Ind.  
Indianapolis, Ind.  
Louisville, Ky.  
Syracuse, N. Y.  
Washington, D. C.  
Milwaukee, Wis.  
Minneapolis, Wis.

Fargo, N. D.  
Portland, Ore.  
Seattle, Wash.  
Kansas City, Mo.  
San Antonio, Tex.  
Dallas, Tex.  
Oklahoma City, Okla.  
Salt Lake City, Utah.  
Sioux Falls, S. D.  
Spokane, Wash.  
Denver, Col.



BLACK EMBROIDERY THAT EDGED THE COURSE DURING THE GRAND PRIZE RACE

fourth place. Wagner was the first man to stop at the repair pit. At the end of the third lap he made a lightning tire change. Chevrolet, also because of tire trouble, stopped at the pit on the fourth round and again on the sixth. He then lost his advantage and never again figured prominently. He drove a furious pace, but on the ninth lap he broke a crankshaft and was out of it. Disbrow, Pope-Hartford, while in twelfth place, cracked a cylinder on the same lap and became a looker-on. Before either Disbrow or Chevrolet had received their quietus Joe Dawson, in a Marmon, and the sensation of the Vanderbilt cup race, had been placed hors de combat. After driving four furious laps he broke his crank-shaft. Dawson himself however, got into the running again on the twelfth lap. Then, by a procedure never before witnessed in a contest of the sort, he took Harroun's place in the other and smaller Marmon car in the race. Harroun at the time was in eighth position and when Dawson took charge he drove to such good advantage that he finished in sixth place, completing the 415.2 miles in 290 minutes.

22.22 seconds. Harry Crant, twice winner of the Vanderbilt cup, on whom some of

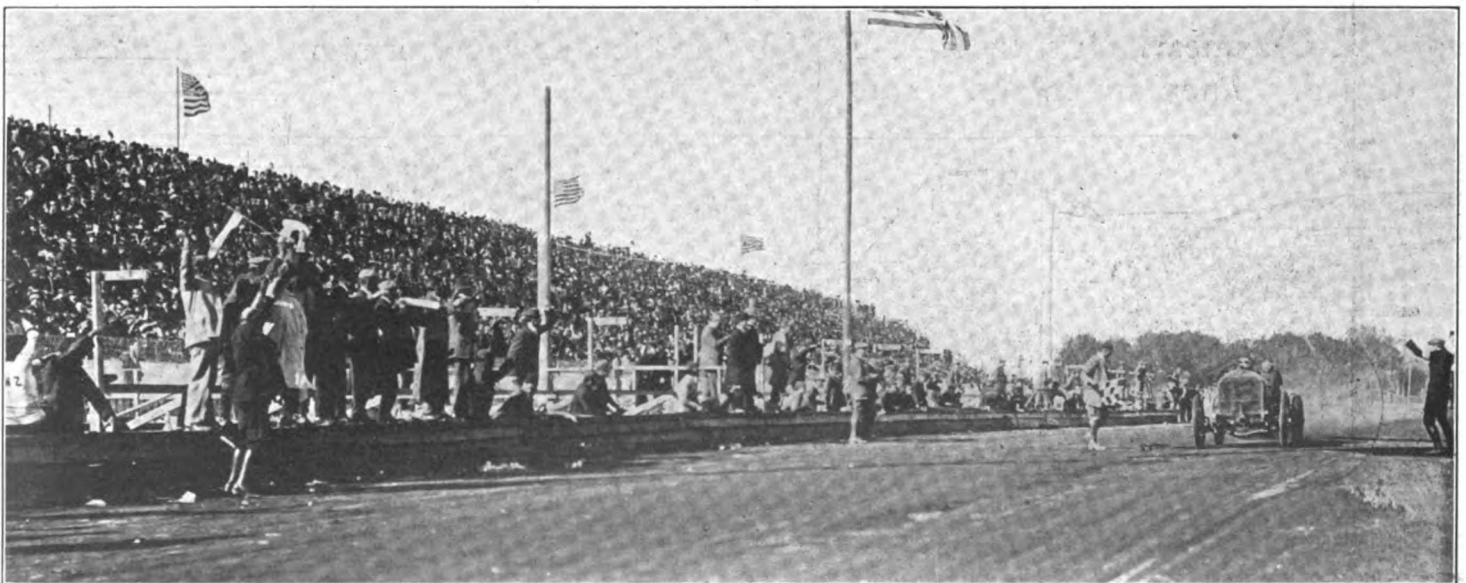


GOV. BROWN, HE FIRED THE PISTOL

America's hopes had centered, dashed the hopes to earth on the tenth lap when he

broke his change speed gear and was forced to retire. Up to that time he had driven his usual heady, consistent race, his rounds having been made with almost clock-like regularity in approximately 15½ minutes. When forced to quit he had worked from tenth to seventh position.

The first accident of the race, and the first foreign representative to be eliminated was Willy Haupt. Driving the smallest of the three Benzes, on the eleventh lap he had, by his dare-devil work, wrested the lead from Wagner, Fiat, who had headed off Hemery two laps before. Knowledge that he was in the lead seemed to excite Haupt to utter abandon. His pace was furious to the point of danger and although it is stated that the Benz camp signaled him that he was driving too fast to stay on the road, he heeded it not. He flashed the twelfth lap in 13:23, the fastest lap of the race and an average of 77.55 miles per hour. On the very next lap, after a long straight-away, he took chances in negotiating a turn and so great was his speed he left the road and dashed for a huge oak tree. By a lightning-like move he changed his direc-



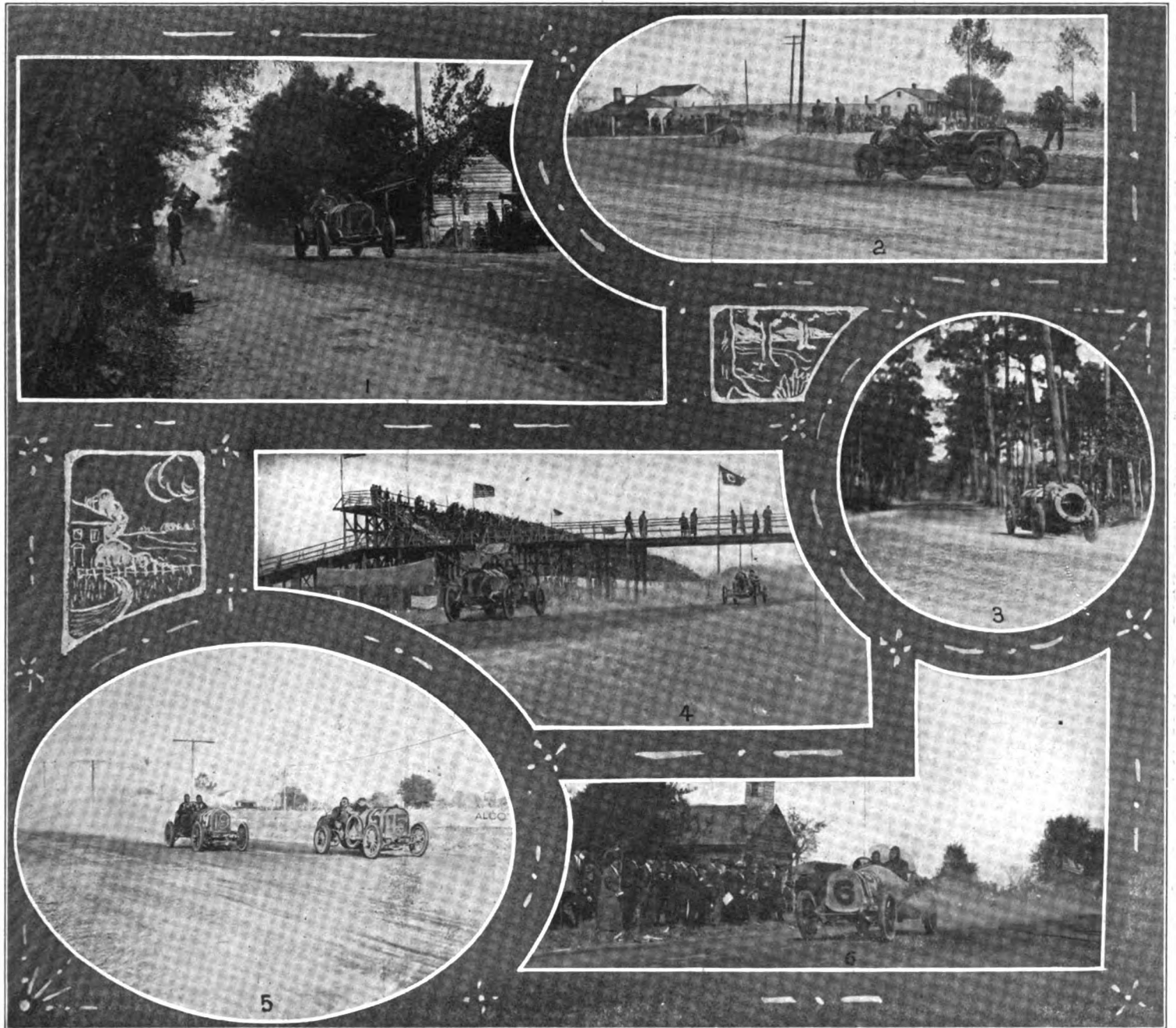
THE SCENE WHEN BRUCE-BROWN FLASHED ACROSS THE LINE A WINNER

tion and although he avoided plunging headlong into the oak he struck it a glancing blow and the big car performed a somersault. Haupt and his mechanic were spilled out, the former being thrown clear and the latter being pinned under the car. Despite the fact, both men escaped with slight injuries.

he again halted and again replaced a chain at a loss of about eight minutes. The bent axle, which caused his chain trouble, forced him to quit on the nineteenth round.

Bruce Brown, after two bad spells on the eleventh and twelfth laps, had regained third place and when Nazzaro retired he moved up one, and the spectacle then was

like mad to make up lost ground, he struck a bad spot in the road and skidding struck a bridge over a runway and, with his mechanic, was thrown out of the car, which was wrecked. Wagner landed in the road, but with presence of mind crawled out of the way of the oncoming cars. At first he was thought to be seriously injured,



VIEWS DURING THE GRAND PRIZE RACE. 1—BURMAN, MARQUETTE-BUICK. 2—GRANT, ALCO. 3—HEMERY, BENZ. 4—BURMAN PASSES MULFORD, LOZIER. 5—WHEN BRUCE-BROWN (15) OVERTOOK DE PALMA (19). 6—BASLE, POPE-HARTFORD

With Haupt out of the way, the flag of Italy, in the person of Nazzaro, swept to the front and stayed there until the seventeenth lap, despite an axle which seemed to have been bent. He stopped for a few seconds on that lap and on the next one stopped still longer, when he replaced a broken chain and lost the lead to his teammate, De Palma. He still remained in second place, but on the eighteenth lap

witnessed of two Americans driving foreign cars, and representing foreign nations, running one, two. Few anticipated that De Palma would win for Italy. Either Nazzaro or Wagner, the latter the winner of the previous Grand Prize race, was expected to turn the trick, but after leading for two laps early in the race, Wagner however, suffered several "bad times" and on the seventeenth round, while driving

zut examination proved that he had escaped with two broken ribs. His mechanic fell into the brush at the side of the road and was not so badly hurt. On the very lap on which he suffered accident, Wagner had dropped a bolt while passing the official stand and had been given the white flag, which signal required him to stop. He failed to stop, however, and later claimed that he did not understand the meaning



of the white flag. It was on the 17th lap that Basle (Pope-Hartford) went out with a seized piston.

With all of the famous foreign drivers except Hemery eliminated, it then was a fairly good gamble that an American driver, if not an American car, would win. But the fates were against De Palma. With

Brown's pace slightly slackened Hemery, drove like a whirlwind and, finishing faster than he started, gained all but 1.42 seconds on the gentle bred American who surprised even himself. It is the closest finish ever recorded in any of the world's great automobile races.

Bruce-Brown's victory was splendidly ac-

tribute to his speed and daring than to the rapidity with which men helped him change tires, for if ever the demon Tire Trouble pursued a man he pursued Burman. It "got him" first on the fourth lap and fourteen times thereafter he repeated the performance. Burman, despite his many delays, worked steadily forward



THE INFLUENCE OF FLOWERS. 1—ON BRUCE-BROWN. 2—ON WITT. 3—ON KNIPPER. 4—ON HEMERY. 5—ON DAWSON. 6—ON GOVERNOR BROWN WHEN DAWSON "PUT ONE OVER" ON HIM

but two laps to go, and while nearly two minutes in the lead, a cylinder of his Fiat cracked and the gold cup and the \$4,000 purse were placed beyond his grasp. Bruce-Brown then took command. With De Palma out, he was leading Hemery by one minute and 29 seconds on the twenty-third lap and with but one round to go it did not seem that he could be headed. Hemery, however, was made of stern stuff and did not despair. He drove the last lap with the daring born of desperation, and while Bruce-

claimed, the Americans at least cheering for the man, and the importers of the car, and their immediate followers, cheering for the machine and waving a few small German flags to emphasize their feelings.

Robert Burman, in a Marquette-Buick—"Wild Bob," some folks call him—finished third, and he earned the place and the \$2,000 which it brought to him, \$1,000 of which was offered for the first American car to finish. How he did so well is not short of remarkable and is not less a

from tenth place in the first lap to third place at the finish.

The Lozier team, Mulford and Horan, finished fourth and fifth respectively. They did not have the power to get further to the front, but they performed consistently and well.

The race concluded, there was something of a flower show. There were bouquets for all who finished, roses for some, chrysanthemums for others. They were presented in the presence of the crowd and the crowd



enjoyed the spectacle. The effect of the flowers on the faces of the men was a study in itself. They produced such a variety of smiles and grins that it were worth the while to witness. The serious Governor Brown himself presented some

of the flowers. When he handed a bunch of roses to Joe Dawson, who had performed the unusual feat of driving two cars in the same race, that round-headed young Westerner literally "put one over" on the Governor. He plucked one of the flowers

from the bunch and leaning over he insisted on placing it in the buttonhole of the Governor's coat. The Governor stood for it without cracking even a semblance of a smile. In fact, it seemed almost that he could not smile.

## Dawson and Knipper Easy Victors in Savannah's Light Car Races

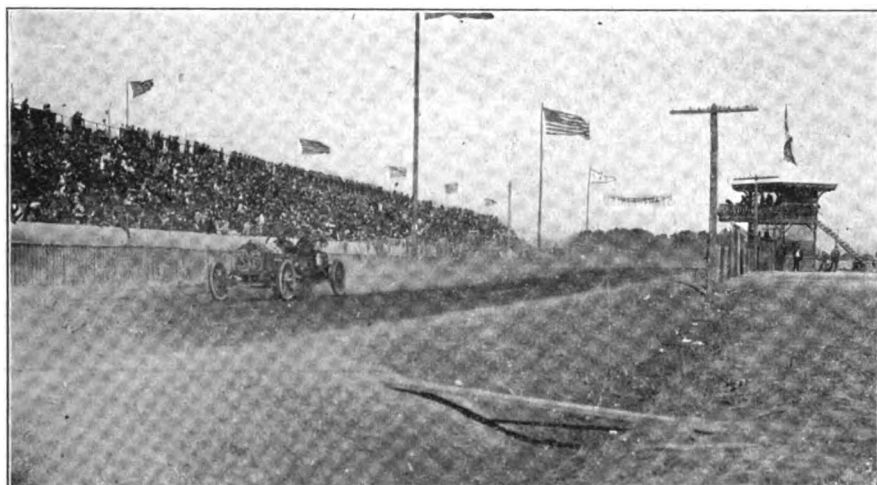
Like all curtain-raisers, the small car races of last Friday, 11th inst., the day preceding the Grand Prize race, relatively were of minor importance. Being set on the

Mr. Tiedeman, the donor, is the mayor of Savannah—was William Knipper, sometimes called the unlucky, who finished the 11 laps, or 190.3 miles, in three hours, 15

out on this plan, the spectators were afforded the more or less pleasing sight of a more or less constant procession of cars and an opportunity to exercise a little mental arithmetic in ciphering out the relative positions of the various contenders.

Dawson, winner of the Savannah club's trophy, which was for cars of 231-300 class, was followed over the tape by Washington Roebling, driving a Mercer car, who finished 11 minutes and 54 seconds behind the leader. Roebling's elapsed time was four hours, 35 minutes and 25 seconds. Hugh Hughes, one of the three Fal car contenders, was third, with a total of four hours, 46 minutes and 11.34 seconds to his credit.

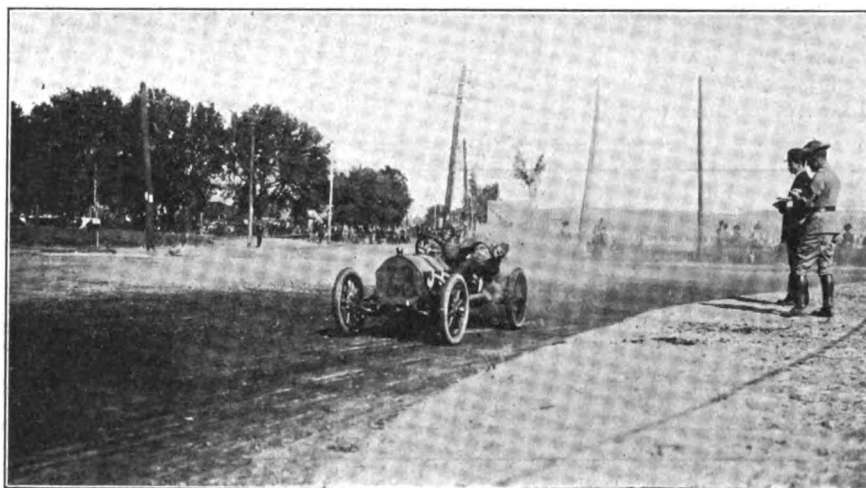
The cars were started at 30 seconds intervals, Hughes, in the Fal, the first to be counted out and given the familiar shoulder pat, slipping away at 10 o'clock. He was followed by Heineman (Marmon), Roebling (Mercer), Gelnow (Fal), Dawson (Marmon), and Pearce (Fal)—six in all and one less than had been expected to start.



DAWSON (MARMON) RUNNING AWAY WITH THE SAVANNAH TROPHY

stage of the big event, however, and arranged with all the ceremony of the great race they were full of interest. Moreover, the crowd, while not as large as that of Saturday, was not small, Grand Prize day being a very great day and, as has been remarked, Friday being the day before. In keeping with their preliminary character they afforded sundry minor thrills to the spectators, and a very fine exhibition of speed. But as races they were lacking the gingery spice of close competition, for in each of the two component events—that for the Savannah trophy and that for the Tiedeman prize—of the composite merry-go-round affair a leader developed who led his field from the start and never was headed. Therefore as far as the element of contest is concerned the story of the light car races is soon told.

Joe Dawson, it was, who, driving a swift Marmon, skimmed over the tarred highways of the course in the Savannah trophy race and literally ran away from his five competitors. His time for the 16 laps, or 276.8 miles was four hours, 23 minutes, 30.98 seconds. Dawson's average speed was 62.68 miles an hour, figures which fail to express the true wonder of the performance for it must be added that he whose performance was one of the marvels of the Vanderbilt race ran his entire distance from start to finish without a single stop and with astonishing uniformity. The star performer in the Tiedeman trophy event—



ROEBLING (MERCER) SWINGING INTO SECOND PLACE

minutes and 22.67 seconds, driving his befunneled Lancia at the rate of 58.44 miles an hour. Figuratively speaking, he had his pursuers hull down all the way. Witt, E-M-F, was the only man who came within hailing distance of him, and he was 11 minutes and 12 seconds behind at the finish.

Under the circumstances the only thing that saved the affair from becoming the tamest sort of an exhibition performance with a few understudies in the background was the fact that the two races were run simultaneously and that in neither case did the fastest driver start first. Therefore, and as always is the case in contests carried

The Pullman entry failed to arrive in season to go into the race.

As has been stated, the race was all Dawson. He simply took to his heels at the word "go," and on each succeeding lap gradually drew further and further ahead. His fastest lap, the third, was negotiated in 15.45. The fight was all for second place, and it was not much of a fight at that. For the first lap Heineman, Dawson's team mate, followed him around and it was a case of one, two. But on the very next round, Heineman suffered ignition trouble which forced him to stop, and he not only lost his place, but fell back to

the last position. It was not until the fifth lap that he regained his stride and then gradually he pressed forward and worked his way to fourth place, which position he held when called off the course when the race was stopped.

With Heineman out of the way, Gelnaw, Fal car, looked the most dangerous runner-up. He slipped into second place, which

This race was of even less interest than the fight for the Savannah trophy. As did Dawson, in the latter race, so did Knipper do in the former. He simply took to his heels and left the others far behind. He was never headed. His fastest lap, the eighth, was reeled off in 17:20. Witt, the E-M-F man, planted himself as firmly in second place, and held that honor safe from



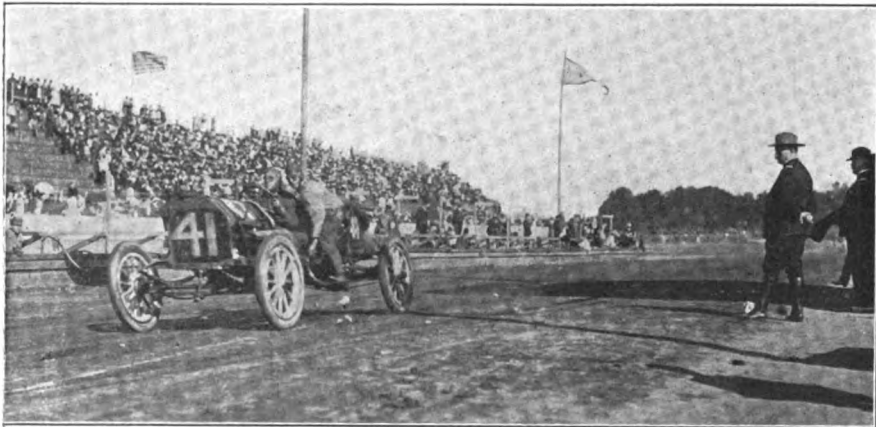
KNIPPER (LANCIA) GOING "ALL OUT" FOR TIEDEMAN TROPHY

he retained for two rounds, or until ousted by Roebeling, in the Mercer. Thereafter, and until the ninth lap, when Gelnaw went down and out with a broken tie-rod, which affected his steering gear, he and Roebeling see-sawed in second place. Roebeling finally remained in the latter until the end of the race.

Pearce, one of Gelnaw's team mates, broke an axle also on the ninth lap and was heard of no more. Hughes, the other

start to finish. He finished the 190.3 miles in 206 minutes and 34 seconds.

Cohen, the other E-M-F entrant, gave some promise in the first lap, when he held third position. But engine trouble then overtook him, and after limping around once more, he retired. Knight, Cole, also retired on the third round with a cracked cylinder. Endicott, his team mate, suffered misfortune even earlier. A broken crank shaft put him out on the second



COHEN'S MECHANICIAN GIVES THE E-M-F A CHARGE OF OIL

Fal car entry, drove consistently, but lacked the necessary speed, trailing respectfully and gradually getting into third place, as the others were eliminated by accidents of one kind or another.

The race for the Tiedeman trophy, for the littlest cars, started immediately the Savannah cup contenders were under way. The eight starters were sent away in the following order: Cohen (E-M-F), Wright (Maxwell), Knight (Cole), Knipper (Lancia), Witt (E-M-F), Doorley (Maxwell), Bill Endicott (Cole), Costello (Maxwell!).

round, when he had forged into fourth place, from his start in sixth.

With Knipper and Witt leading the procession and Cohen, Knight and Endicott eliminated, the struggle for third position resolved itself into a see-saw match between the three Maxwell entries. They changed positions several times during the race, the scrap between Costello and Wright being a pretty one, the former finally beating his mate for third place by a scant four seconds. During the last two laps Wright made up more than five minutes.

SUMMARY OF THE TIEDEMAN TROPHY RACE, 161-230 CLASS, 190.3 MILES, AT SAVANNAH, GA., FRIDAY, NOVEMBER 10, 1910.																
Driver.	Name of Car.	Bore.	Stroke	Displacement.	Lap— Miles—	1	2	3	4	5	6	7	8	9	10	11
W. Knipper	Lancia	3.94	4.33	211.1	Elapsed time...	18:10	34:6	51:9	69:2	86:5	103:8	121:1	138:4	155:7	173	190:3
					Position .....	18:10	35:45	53:15	70:42	88:08	105:44	123:18	140:38	158:28	176:52	195:22
F. A. Witt	E-M-F	4.00	4.50	226.2	Time of lap...	18:10	17:35	17:30	17:27	17:26	17:36	17:34	17:20	17:50	18:24	18:30
					Elapsed time...	18:30	36:40	54:57	73:08	91:08	109:08	127:10	145:05	162:52	185:30	206:34
					Position .....	2	2	2	2	2	2	2	2	2	2	2
T. Costello	Maxwell	4.1376	4.25	228.4	Time of lap...	18:30	18:10	18:17	18:11	18:00	18:00	18:02	17:55	17:47	22:38	21:04
					Elapsed time...	19:46	38:57	58:16	77:51	97:26	116:50	137:25	161:31	180:53	200:11	219:19
					Position .....	5	3	3	3	3	3	3	4	4	4	3
E. Wright	Maxwell	4.1376	4.25	228.4	Time of lap...	19:46	19:11	19:19	19:31	19:35	19:24	20:35	24:06	19:22	19:18	19:08
					Elapsed time...	20:35	40:42	60:26	80:05	101:18	121:19	141:01	160:34	180:09	199:48	219:23
					Position .....	7	6	5	4	5	5	4	3	3	3	4
M. Doorley	Maxwell	4.25	4.25	241.1	Time of lap...	20:35	20:07	19:44	18:39	21:13	20:01	19:42	19:33	19:35	19:39	19:35
					Elapsed time...	20:14	40:04	60:05	80:31	100:39	121:13	141:40	169:27	194:13	215:22	236:07
					Position .....	6	4	4	5	4	4	5	5	5	5	5
H. Cohen	E-M-F	4.00	4.50	226.2	Time of lap...	20:14	19:50	20:01	20:22	20:08	20:34	20:27	27:47	24:46	21:09	20:45
					Elapsed time...	19:18	46:11									
					Position .....	3	7									
H. Knight	Cole	4.00	4.00	201	Time of lap...	19:18	26:53									
					Elapsed time...	20:55	40:35									
					Position .....	8	5									
					Time of lap...	20:55	19:40									
					Elapsed time...	19:35										
					Position .....	4										
W. Endicott	Cole	4.00	4.00	201	Position .....	19:35										
																</

**NEW HUDSON MINUS 900 PARTS**

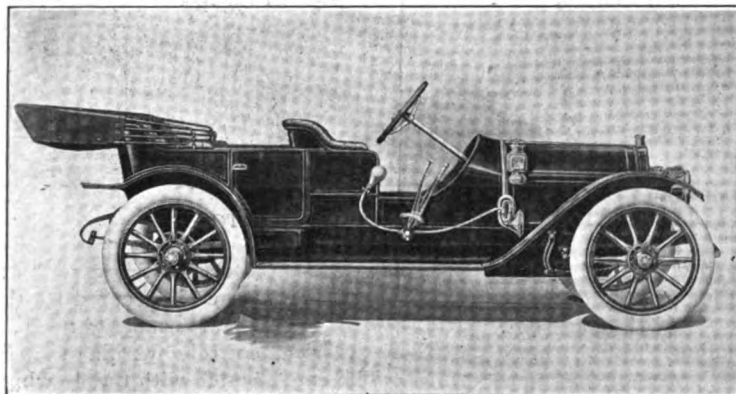
**Which Shows How Simple It Is—Built in Three Styles with One Chassis—Radical Changes Effected.**

While the new models presented at this time of the year usually differ from their predecessors or from each other in the

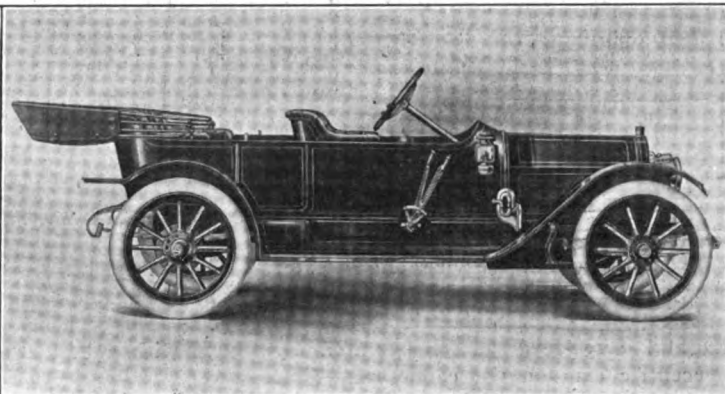
ance of a solid cast block with no moving part but the fly wheel. The exhaust manifold is detachable so that short pipes for racing purposes quickly may be bolted on to a projection through the side of the bonnet. The motor is characterized by few projecting parts and corners. The top of the cylinder block water jacket has been entirely cut away and a large cap piece

Hudson design is that the exhaust and intake manifolds are carried on opposite sides, the former on the left and the latter on the right. The gases are taken from the carburetter, past easy bends through the casting between the cylinders, into the intake valve ports on the opposite side.

The cam shaft, which is 17-16 inches in diameter, is driven from the train of gears



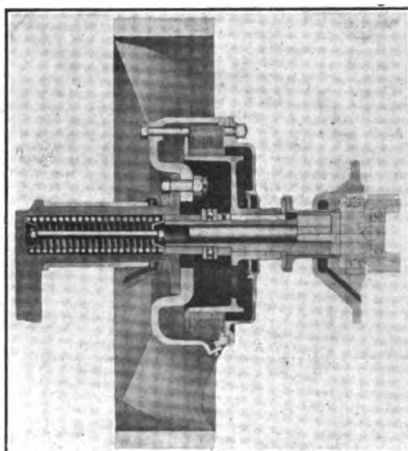
THE ROADSTER FORM OF THE NEW HUDSON



THE HUDSON "33" WITH TORPEDO BODY

matter of bodies or slight changes in mechanical details, the Hudson "33," manufactured by the Hudson Motor Car Co., Detroit, Mich., is an exception to the rule. This new car is quite a departure from the Hudson "20" and incorporates some radical changes in respect to motor, motor suspension, clutch, frame and other parts of the chassis. As its title indicates, it is of 33 horsepower. The appearance of the bodies also differs from the "20," the larger radiator and the metal dust apron between running boards and fenders and the frame rendering it quite distinctive. The car is claimed to contain some 900 parts less than the average car of its class.

The new "33," with five passenger body, will sell for \$1,250, with four passenger tonneau for \$1,300 and a five passenger

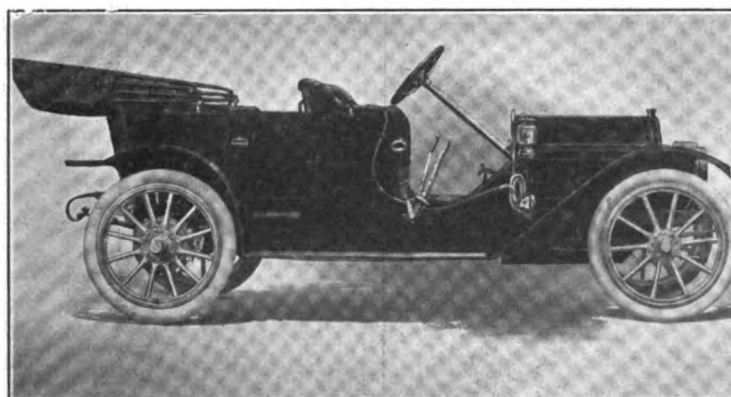


HUDSON CLUTCH MECHANISM

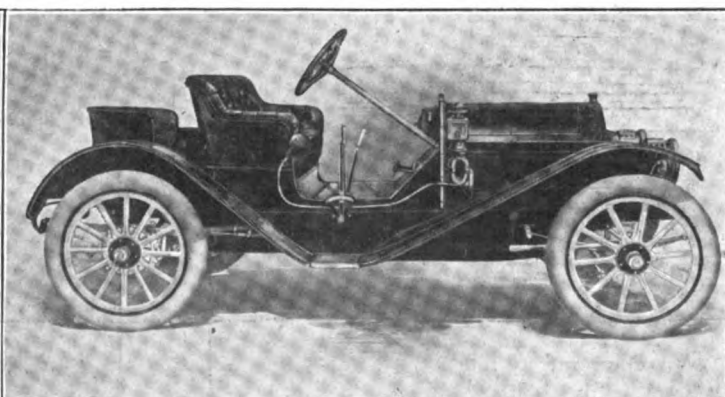
in front, which are of the spiral type. There are but two gears in the front gear case, one of which is on the crank shaft and the other on the cam shaft. On top of the cam shaft gear in a separate housing is the transverse spiral gear on the magneto and pump shaft, driving the same.

On the left side of the motor are two plates covering the valves, springs, push rods, etc., not only protecting them from dirt and dust, but deadening the slight noise. The mere removal of these plates renders the valves immediately accessible.

The two-bearing crank shaft is of generous proportions. The front bearing is  $2\frac{1}{8} \times 3\frac{1}{2}$  inches and the rear one  $2\frac{1}{4} \times 4$  inches. The crank case, which surrounds the crank and cam shafts, is of barrel construction, and as it is not split in two sec-



HUDSON STANDARD FIVE PASSENGER TOURING



HUDSON THREE PASSENGER RUNABOUT

torpedo form for \$1,350. In addition the 20 horsepower roadster at \$1,000 will be continued.

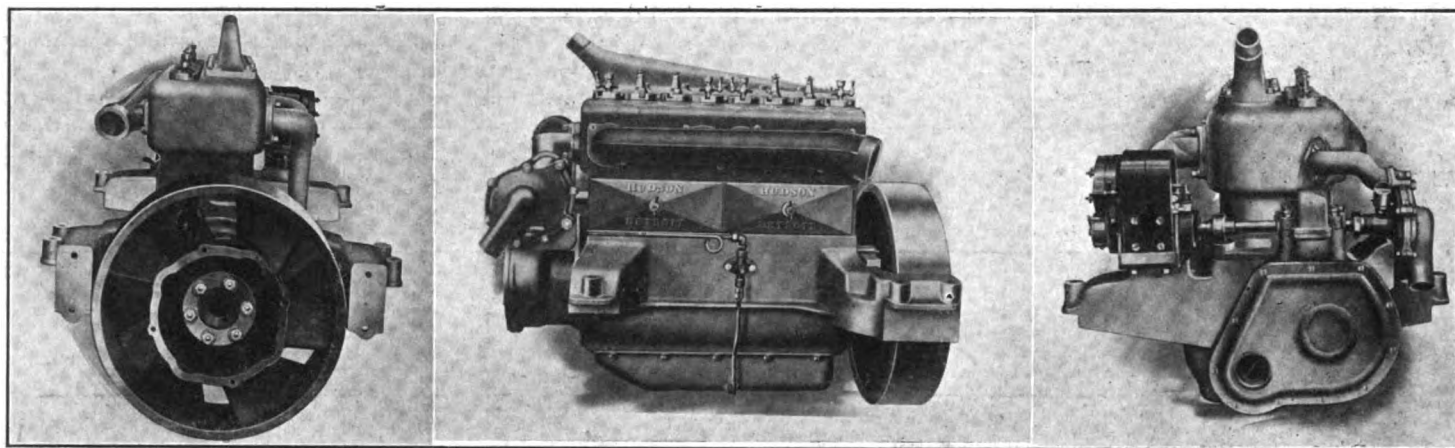
The motor in the new model is cast en bloc as heretofore with cylinders 4 by  $4\frac{1}{2}$  inches, but this year incorporates many original features. It presents the appear-

fitted over it, tapering to a good sized neck at the forward end, over which is slipped the hose making one of the connections with the radiator. There are but two base connections, both of which are extremely short.

Another notable change from previous

tions, two end doors are set in to carry the crank shaft bearing and to be used also for their removal.

The motor is cooled by means of a pump, radiator and fly wheel fan. The radiator is the same type as that in Hudson "20," but it is made two tubes deeper, thus



END AND SIDE VIEWS SHOWING THE GENERAL CONSTRUCTION OF THE NEW HUDSON MOTOR

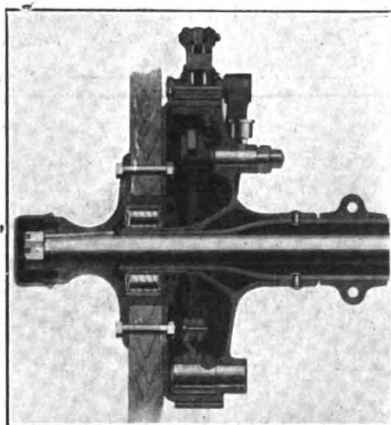
having more cooling service and greater capacity.

Lubrication is accomplished through a horizontal force-feed pump, operated by an eccentric cam on the cam shaft. The discharge from the pump leads directly to the timing gears, then from the gear case to the crank case, filling the various compartments to the proper level and overflowing at the rear into a reservoir bolted to the base of the crank case. The pump operates a sight-feed on the dash board, and the oil level is determined by means of a try-cock located on the right side of the reservoir.

The ignition is by means of a Bosch Duplex magneto, a coil and batteries. The coil is non-vibrating and on the dash presents the appearance of a simple switch. The batteries are used for starting, being switched off after the motor is running, of course.

The cone clutch has been abandoned in the new model, and in its place is substituted one of the multiple disc type. The position of the clutch spring is novel, in that it is inserted in the bored out rear end of

the crank shaft. It is so controlled that it cannot expand more than about  $\frac{3}{8}$  of an inch. This control is established by two cups with a bolt extending through them,



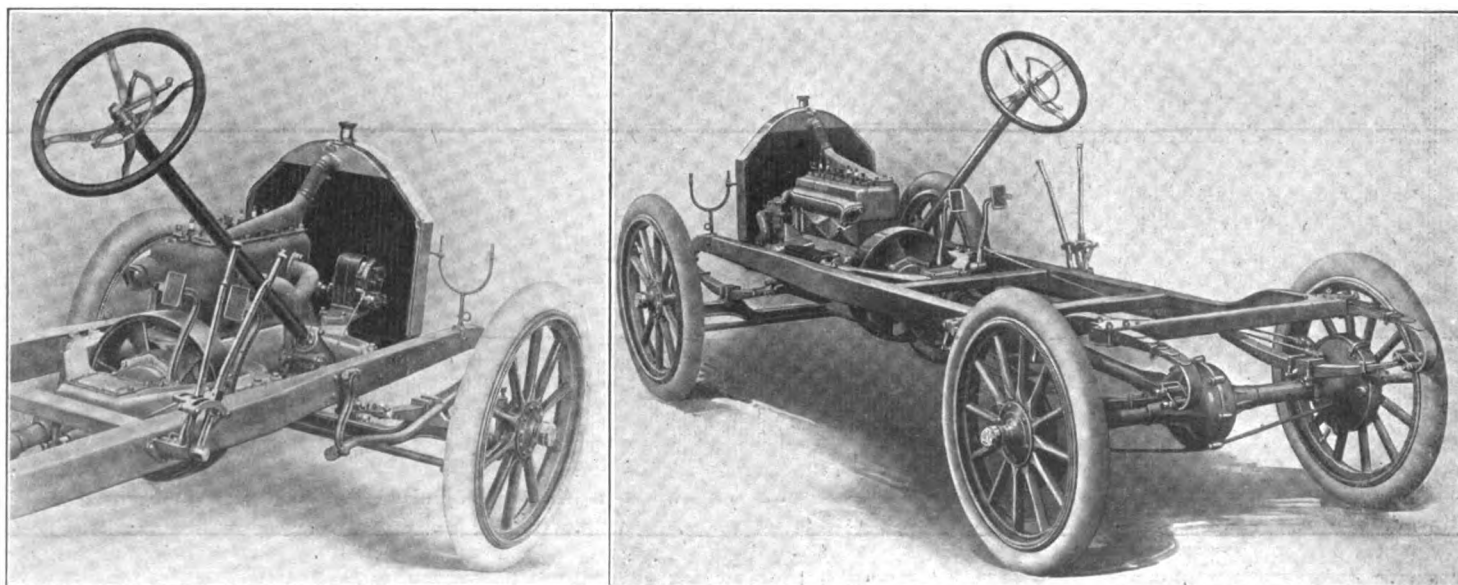
HUDSON BRAKE MOUNTING

so that the spring when removed is somewhat in the shape of a cartridge. It does not have to be compressed by hand when assembling the clutch, as the tension is

given by means of the clutch case bolts. Great economy of space is secured by this arrangement as the clutch and its mechanism are carried entirely within the fly wheel. The entire clutch with the fly wheel, bearings, and ball thrust bearings may be removed from the case by removing the nuts of through bolts which carry the outer clutch discs, and from cap screws which hold the cover in place, the transmission end having been uncoupled previously.

The transmission is of the selective sliding gear type, giving three speeds forward and one reverse. It is bolted directly to the two rear legs of the motor by four heavy bolts, and is not supported by the frame. All of the clutch, brake pedal and clutch throw-out mechanisms are carried on the transmission legs instead of being supported by the frame. The usual universal joint between the clutch and transmission is eliminated.

The drive is through a Spicer joint to a rear axle of the full floating type. The forward end of the propeller shaft is supported by a roller bearing, the rear end by ball bearings, and the shaft is enclosed



CHASSIS OF THE HUDSON "33" SHOWING METHOD OF ASSEMBLAGE AND CONTROL SYSTEM



in a torsion tube, no rod being used.

For the weight of the car, the frame used is very strong, the mid-section being a channel section, tapering to both ends. Four heavy cross members are used, one in front for the rigid support of the radiator, one at the point where the operating levers are attached, the third at the point of anchorage of the rear springs and the fourth at the rear, projecting beyond the side members and embracing the upper quarter of the three-quarter elliptic rear springs. No sub-frame is used in the new "33," the large box-section legs of the motor being bolted directly to the frame and resting on supports which project slightly out from the mid-section. Six heavy bolts hold the motor in place, one on each forward and two on each after leg.

The service brake, operated by a foot pedal, acts externally and the emergency brake controlled by a lever at the side acts internally. The drums are large in size and an improved leverage arrangement makes their operation easy and effective.

The front axle is an I-beam drop-forging, with flanges at the spring seats greatly widened.

Round section spokes are substituted for the usual thin section forward and rear, adding strength and durability. Both the front and rear wheels are 34 x 3½ inches on all models. The wheel base is 114 inches. The springs are semi-elliptic in front and ¾ elliptic in the rear.

The car is driven from the right hand side and controlled by a rakish set steering wheel, upon which are mounted spark and throttle control levers. Two pedals are conveniently placed, working through the floor boards, one of which operates the multiple disc clutch, and the other controls the service brakes. At the right hand side attached to the frame and set together in an integral casting are the two levers which operate the emergency brakes and the change speed gears respectively. An accelerator pedal is interconnected with the throttle control lever.

#### Motor Truck Goes to S. P. C. A. Assistance.

The Boston Society for the Prevention of Cruelty to Animals, the aged head of which declared about two years ago that automobiles were nuisances, has been using one of the despised vehicles to assist its work. To discourage the overloading of teams the S. P. C. A. has let it be known that it will assist teamsters in surmounting the steeper grades in the business portion of the city and last week it did so by stationing a 30 horsepower Atterbury truck, contributed by the Waite-Robbins Motor Co., on the Asburton Square hill, up which the heavily loaded wagons were assisted. They were hitched to the Atterbury truck and coal carts, with loads of 8,000 and 9,000 pounds, and were pulled to the top of the grade at a pace that forced the horses to step lively.

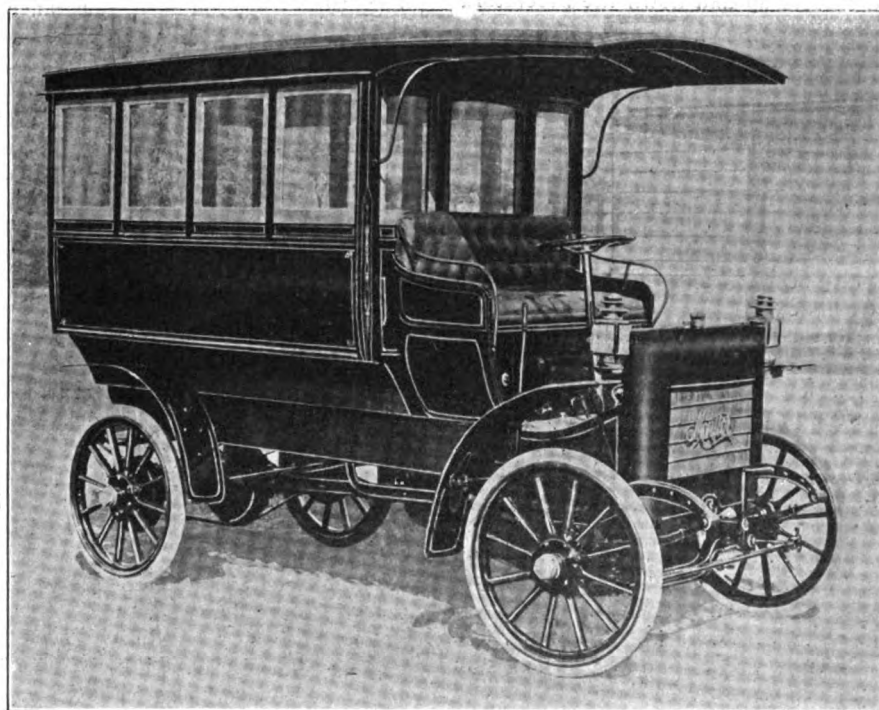
## MONITOR BUILDS A STATION BUS

Janesville Product Designed to Serve Hotels, Clubs and Theaters—Its Chassis Made for Heavy Duty.

With the elimination of the idea that a special body on a standard pleasure car chassis constitutes a true commercial vehicle, manufacturers are beginning to develop tendencies to specialization in business wagon production, as, to a certain extent, has been the case in the building of pleasure cars. In this way the sight-

the ceiling being of redwood and white pine laid in alternate strips. There are four drop windows on each side, three in front and two in the rear in addition to the door, and they may be lowered or closed without trouble at any time as the different conditions of the weather may require.

The chassis used is the regular type "A" style of the Monitor line. It is rated at 2,000 pounds capacity and has a 20 horsepower double-opposed motor of 5 by 4 inch cylinder dimensions. Transmission is through a planetary change speed gear and enclosed driving shaft to a semi-floating rear axle. The wheel base of 100 inches



THE NEW MONITOR 20 HORSEPOWER STATION BUS

seeing car, the massive truck, the light-weight truck, the delivery wagon and the cab have been developed. Still another type of vehicle that appears to have a peculiar field all its own is that of the small omnibus for transfer, station and theater work, and that there are few communities in which such conveyances cannot be advantageously employed is indicated by the increased and increasing demand for them.

A new and compact member of this class just has been developed by the Monitor Automobile Works, of Janesville, Wis. As the picture shows, it is of the conventional form, patterned after the style that has been used in horse-drawn equipments for so long. In adapting it to the automobile, however, it has been modified to the extent of introducing a number of modern features. The interior, which offers accommodation to 10 persons, is 65 inches in height and 76 inches long, the seats are 14 inches wide and the aisle is 22 inches in width. The interior trim is of quarter-sawed oak,

is sufficient in this case to permit the entire vehicle to be hung between the wheels thus affording easy suspension assisted by the semi-elliptic front, and full elliptic rear springs. The wheels are 34 inches in diameter, shod with 2½ and 3 inch solid tires in front and rear, respectively.

#### Australia Makes Queer Customs Ruling.

Although automobile parts may have been assembled and imported into Australia as complete cars, the government of that country in its most recent customs orders provides that the duty on automobiles be levied on the home consumption value in the exporting country of each part. In addition to setting forth the price of the complete car, the accompanying invoices must include the prices ordinarily charged for the body, footboards, mud guards, lamps, etc., when sold separately, and the exporter must file a declaration stating that the prices shown are not less than are charged to purchasers of similar cars and parts in the country of origin.

**MEET MARRED BY POSTPONEMENTS**

**Small Crowd Rewards Mount Vernon's Efforts—Wishart Scores Twice and Splitdorf Trophy Winner is Disqualified.**

Two postponements did not help the racemeet of the Mount Vernon Automobile Club when the affair finally was run off on Saturday last, November 12, at the Empire City track, near Yonkers, N. Y., and even then Jupiter Pluvius was not on his best behavior, for he frowned ominously and the atmosphere was of the sort that chased shivers up and down the spectators' spines. There was not much of a crowd present, however. A few cars were parked behind the grandstand and a handful of spectators was grouped in the stand itself.

The "lion" of the meet was Spencer E. Wishart, who twice drove a 60-horsepower Mercedes to victory. He captured the 10 miles race for cars of over 300 cubic inches piston displacement and the five miles free-for-all handicap.

The feature event on the card was a one hour race for the Splitdorf magneto trophy, which must be won three times to become the property of the holder. It was not much of a contest, however, as E. S. Hessels, driving a Pope-Hartford, took the lead at the crack of the gun and held it to the end, covering  $47\frac{3}{4}$  miles in the hour. Hessels, however, was protested and disqualified, it being claimed that his Pope-Hartford was not a stock car. This gave first prize to C. W. Lowa (Maxwell), and moved Otto F. Rust (Black Crow) and P. von Bartmer (Buick) into second and third places, respectively.

The 10 miles for cars having over 300 cubic inches piston displacement brought out five starters, and up to the half-way mark the race was a pretty fight between Milton McBride in a 60 horsepower Stearns and Spencer E. Wishart in his 60 horsepower Mercedes. Thereafter it was all Wishart, with W. Harold Mendel in another Mercedes closely following McBride and giving him a run for second place. These three drivers finally crossed the finish line in this order in the following times, respectively: 10:52, 11:35 and 11:45.

Percy Haycock (Reo) won the 10 miles for Class B stock chassis, in 13:52 $\frac{1}{2}$ , leading throughout, except for the first half mile in which he trailed von Bartmer (Buick), who finished second. Lowa (Maxwell) was third.

In the five miles free-for-all handicap the contenders were handicapped in yards instead of in the usual way. Wishart (Mercedes), after having allowed starts up to 1,000 yards, soon left the other scratch men, McBride and Mendel, and quickly collaring the long markers, won as he pleased in 5:23. McBride (Stearns)

was second in 5:46 and Mendel (Mercedes) third in 5:54.

The last event was restricted to members of the Mount Vernon Automobile Club and was a handicap race at 10 miles. Edmund L. Hass (Stearns), scratch, proved victor, with Mendel (Mercedes), another scratch man, second. Time, 10:55.

The Overland "Wind Wagon" was driven an exhibition three miles against time and performed consistently, the clockers catching the time for the first mile at 1:36 $\frac{3}{4}$ , the second mile at 3:10 $\frac{3}{4}$ , and the three miles in 4:35 $\frac{3}{4}$ . The summary:

One hour race for Splitdorf Trophy, for stock chassis 231-300 cubic inches—Won by C. W. Lowa, Maxwell. Distance, 44 $\frac{1}{2}$  miles. Otto F. Rust, Black Crow, second. Distance, 44 $\frac{1}{4}$  miles. Paul von Bartmer, Buick, third. Distance, 43 miles. E. S. Hessels (Pope-Hartford) finished first, but was disqualified.

Ten miles for cars over 300 cubic inches piston displacement—Won by Spencer E. Wishart, Mercedes. Time, 10:52. Milton McBride, Stearns, second. Time, 11:35. W. Harold Mendel, Mercedes, third. Time, 11:45.

Five miles free-for-all handicap—Won by Spencer E. Wishart, Mercedes. Time, 5:23. Milton McBride, Stearns, second. Time, 5:46. W. Harold Mendel, Mercedes, third. Time, 5:54.

Ten miles for stock chassis, Class B—Won by Percy Haycock, Reo; Paul von Bartmer, Buick, second; C. W. Lowa, Maxwell, third. Time, 13:52 $\frac{1}{2}$ .

Ten miles club race—Won by Edmund L. Hass, Mercedes (scratch). W. Harold Mendel, Mercedes (scratch), second. Otto F. Rust, Black Crow, third. Time, 10:55.

**Kansas's Way of Suppressing Joy Riding.**

"Joy riding," particularly in a judge's car, will lose most of its charm if the verdict of a Kansas jury finds many echoes in other directions. Judge Lee Munroe was the man whose car was taken out of a Topeka garage without permission by George Rutter, a chauffeur, who then wrecked before he returned. Judge Munroe promptly entered suit for \$1,000 damage, not merely against the garage owners, A. C. Longren and H. H. Potter, but against the offending chauffeur, his companion and the man who was in charge of the garage on the night the car was removed, and after two hours deliberation the jury returned a verdict holding all of them liable for the amount.

**Floridans Form a Touring Club.**

Thirty-one motorists of Jacksonville, Fla., have formed an organization styled the Jacksonville Motor Touring Club, and elected the following officers for the first year: President, Herbert B. Race; treasurer, O. S. Albritton; secretary, Charles L. Bagwell. The club has become affiliated with the A. A. A.

**TWO WHO TOP VANDENBERG'S AGE**

**Pennsylvania Produces 76-Year Old Motorist, but a New Jersey Youngster of 80 Years Claims the Honors.**

C. C. Vandenberg, of Lafayette, N. Y., is not the oldest operator of a motor car in this country, after all, his photograph published in the Motor World, having brought forth two more aspirants for the honor. Although Mr. Vandenberg is 75 years old, S. I. Fries, of Altoona, Pa., admits having seen the snows of 76 winters, thereby eclipsing the age-record of the former gentleman by a slight margin.

In addition to driving his own car, a 1904 model Franklin runabout, Mr. Fries writes that he does all his own repair work. Being a mechanic by trade, he has on several occasions completely dissembled his car and put it together again without assistance. He considers the car to be in better condition now than when he bought it and will sell it if he can get a used Franklin surrey of this year's make at a fair price.

As old as is Mr. Fries, however, Abram Cochran is older. Mr. Cochran's age exceeds man's allotment of three-score years and ten, by 10 years and he has driven and cared for his own car for the last two years. In his letter to the Motor World, Mr. Cochran says of Mr. Vandenberg:

"He is only a boy—I can go him one better. I am in my eightieth year and have been operating my car myself and also caring for it for the last two years. I have been looking for a man of my age who is operating a car, but have been unable to find one." Mr. Cochran is an attorney-at-law, whose home is in Elmer, N. J.

**Boston Now Permits Tire Chains in Parks.**

Recognizing the necessity of anti-skidding devices on automobile tires in winter, the Metropolitan Park Commissioners of Boston, Mass., finally have modified their regulations regarding the use of non-skidding devices on the metropolitan park roadways. Heretofore the use of chains has been prohibited altogether by the Metropolitan board, while the city board of park commissioners allowed them to be used. Under the new ruling motorists may now use chains in the metropolitan park system from November 15 to March 31. The favorable decision was brought about by the petition of the Boston Automobile Dealers' Association.

**Harrisburg Gets Its "National Association."**

Another "National Association of Automobile Owners" has just "opened up" in Harrisburg, Pa. Its "headquarters" are at 24 South street, where some supplies and accessories are to be sold on the co-operative plan.

## WHAT IS A LONG STROKE MOTOR?

**Many Engines Improperly so Termed, Claims an Authority Who Favors Short Stroke—Aeroplane Motors Cited.**

Much has been said of the superiority of the long stroke type of motor for automobile use, but, strange to say, relatively few arguments have been advanced in favor of the opposite type. This may be due in part to the fact that no dividing line between long and short stroke limits as yet has been established. At all events one authority who advocates the short or medium stroke, as compared with the other extreme, makes a strong plea in its favor, drawing supporting evidence from the new and aggressive field of aviation.

"Characteristics tending to render the short stroke motor better suited to the requirements of automobile service than the long stroke are its saving in weight, its better fuel economy and ability to attain higher speeds," is his assertion. Regarding the definition of what a long-stroke motor really is, he goes on to say:

"The idea is somewhat prevalent that any motor which has a stroke longer than the bore is a long stroke motor. There are some motors with  $3\frac{1}{2}$  inch bore by 4 inch stroke, developing about 18 horsepower, and others with about  $4\frac{1}{4}$  inch bore and 4 inch stroke, developing from 30 to 40 horsepower, that are properly classed as short stroke motors. Really an automobile motor is not a long stroke motor unless the stroke is 6 or 7 inches long, with a  $3\frac{1}{2}$  or 4 inch bore. Nearly all American cars, therefore, have motors which properly belong in the short stroke class.

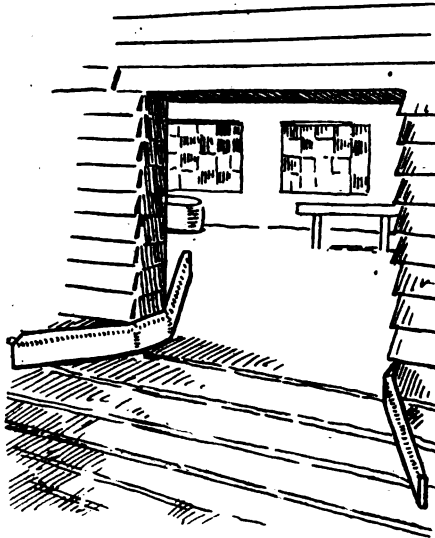
"As to the relative weight of long and short stroke motors, the engines used in various aeroplanes furnish good comparisons. Naturally they are all of extremely light weight and most of them are air cooled. Taking the bore, stroke, weight of motor, weight of engine per horsepower and ratio of stroke to bore of over a score of aeroplanes, the result shows that the long stroke motors have the greatest weight per horsepower unit or power developed. In several cases the weight per horsepower is less than four pounds where the ratio of stroke to bore is about one, while the engines which have the stroke greater than the bore show a weight of over  $6\frac{1}{2}$  pounds per horsepower. Only 3 of over 20 of these airship engines have a stroke more than an inch longer than the bore.

"Another disadvantage in many cases of the long stroke is that the increased weight in engine and chassis is greater in proportion than the increase in power. The most powerful engine for its weight seems undoubtedly to be one with the ratio of bore to stroke nearly equal.

"A few of the reasons for the low weight of the short stroke motor are shorter connecting rods, shorter and lower cylinders, smaller crank case and lighter flywheel. The center of gravity is lowered, and furthermore the shorter leverage reduces the amount of strain on the gears, joints and shaft. The motor may be cranked with more facility, will respond quicker to the accelerator, and in general is more flexible because an engine of this type has a greater possible variation in revolutions than a long stroke motor. As a greater number of revolutions is made by a short stroke motor for the distance the piston travels, other things being equal, higher speed is possible."

### Greased Ways to Save Fenders.

When leaving or entering a garage, and particularly where the entrance is steep or



otherwise difficult, the fenders, wheels, running board or some part of the car are apt to strike the door casing at one of the sides, marring or otherwise damaging the body. Even though the utmost care is exercised in the handling of the car, this happens frequently on account of the extremely narrow passage through which one is compelled to drive to gain entrance to these narrow-door garages.

For the prevention of any such accidents a Brooklyn (N. Y.) garage has at its entrance two string pieces, about two by four inches, secured to the floor of the driveway, tapering apart, from the ends of the door sill, and extending outward about four feet. Two like pieces similarly are placed inside on the floor and each is connected to the respective outside strips by short parallel strips. All the pieces are rounded and planed, so that they will not cut or injure tires, and greased to facilitate the guiding of the cars. With the use of these pieces it is readily seen how easily a car may be run either in or out without any chance of scraping or marring any part of it. It is important, of course, that the strips be so placed as to allow ample clearance for the fenders.

## SALESMANSHIP AT THE SHOWS

**Kansas Dealer Draws a True-to-Life Picture—Necessity for Salesmen Who Really Know Their Cars.**

In an article recently published in one of our weekly periodicals in regard to automobiles being sold among the rural districts, the writer thereof drew attention to the fact that the buying public were becoming educated, technically, and that no longer did they accept the general appearances of the car as a guarantee of good qualities but that it was becoming necessary to "show them" that the car was technically right.

This brings to mind the fact that a great many of the manufacturers exhibiting in the large automobile shows throughout the country seem to lose sight of the fact that a salesman must be able to talk something besides what the car has done and what a fine finish it has, etc.

During the Chicago show last winter "yours truly," who has had several years experience in selling, operating and repairing cars, called at different booths and engaged the salesmen in conversation in regard to technical points and it was surprising how lacking most of them were in technical knowledge.

For instance, in ten or twelve cases the salesman had to look at his catalog before he could tell the size of the bore and stroke of the cylinder. In very few instances did they know the size of the crank shaft, the diameter of the crank pins or the number of inches in bearing surface on the main and crank bearings. Very few of them knew the size of the driving shaft or of the live axle shaft. The number of rings on the piston and the diameter of the valves was also Latin to most of them.

These are a few of the things that the man technically posted wishes to know. He may not care anything about it when he buys his first car, but when he is out after his second machine he wishes these things for comparison. Some salesmen will hand you a catalog saying: "That will give you all of the dope." This, however, is not the case, as very few of the above questions are answered in the average catalog. Factories seem to think it is wasting good space to state these things, or they are afraid their competitors will make "thunder" out of it. This is a mistake.

In fact the average catalog gives very little information in regard to measurements, outside of the size of the cylinders. Some will ask, "Of what benefit is the knowledge of the size of the crank pin and width of the crank box?" In answer to this, the man who knows will, by a little figuring, tell you whether your engine has as many inches of bearing surface on this

Another engineer of established reputation, in speaking of motor express possibilities, said:

"The fact that long distance motor express service would involve but one handling of merchandise is one of the greatest arguments for this kind of service, for it is evident that parcels are shifted several times in regular express haulage, and shifting invariably means but one thing—damage. Such a service as a New York-Boston route, with intermediate stops at perhaps New Haven, Hartford, Springfield and Worcester, would have to be planned on the established railroad methods with a trained organization of men to operate night and day in three shifts, with a suitable equipment of spare trucks.

"Such a service, per truck, would cost to operate, figured at the maximum, including wages, fuel, repairs, etc., about \$40 per full day of 24 hours. The bodies of trucks could be shifted, fully loaded, from chassis to chassis, at any point along the route if desired. This would only occur for minor repairs."

#### To Test the Line-Up of Wheels.

Wheels out of line cause undue strain and wear upon tires, and, as expense of tire up-keep is one of the greatest which the motorist has to meet, it is well occasionally to investigate their line-ups. There are several different ways by which to find out whether or not the wheels are running truly. In the first place it is important to see that the front axle is straight across the car. Then take a string and see whether or not it touches the rims of a front and a rear wheel at four places when drawn from the forward part of the first wheel to the rear part of the back wheel and several inches above each hub. Draw it across several inches below the hubs in the same manner. Any wheel out of line also may be detected by measuring the distance between the front rims, both forward of the axle and in the rear. Another means often used is the spinning wheel method. The car is jacked up and the wheels white-washed. When the wheels are revolved rapidly the whitewash is thrown off in a straight line from each one. Obviously if the lines are not parallel the wheels are not in proper alignment. This latter method, while detecting a considerable deflection, does not answer satisfactorily when absolute accuracy is sought.

#### Celluloid that Causes "Frothing."

Especially in storage batteries of the celluloid-cased type, the frothing of a cell is a rather common complaint. As one of the principal constituents of celluloid is camphor, an extremely volatile substance, celluloid is not particularly staple. Frothing in most cases has its origin in the use of impure water, lime salts being deposited on the plates and interfering with the process of charging.

## EVOLVES NEW SELECTIVE SYSTEM

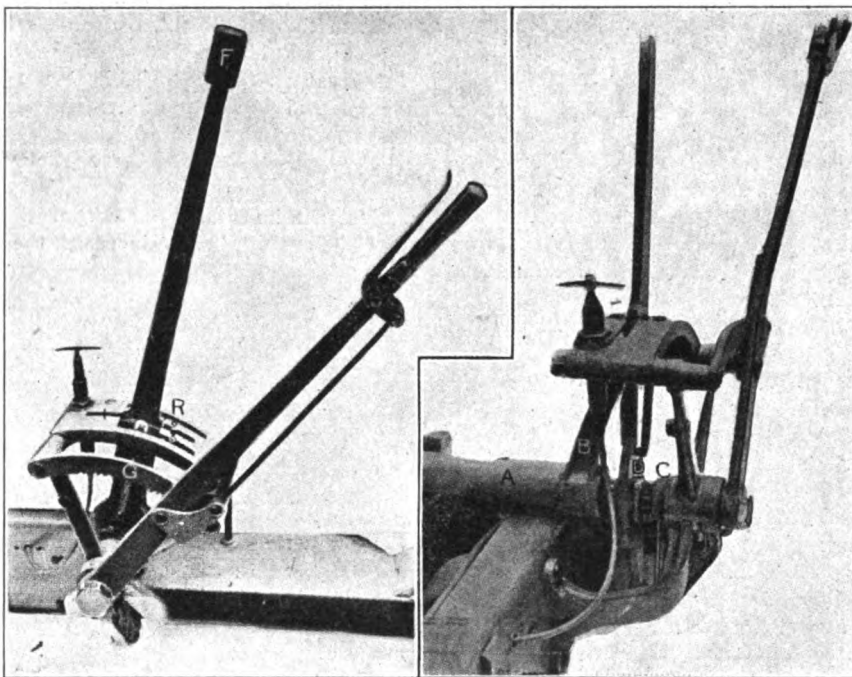
**British Maker Develops Novel Gearset—  
Forward Speed Slots in Front—No  
Gears Meshed on High Speed.**

By the adoption of a triple-slotted gear-shifting segment the builders of the British Napier cars have been able to secure the desirable feature of a direct driven high speed with no gears in mesh and the lay shaft at rest. This feature has been used on several American cars, though it is believed not at present employed, the complication thought necessary in order to secure the result commonly having been

the pivoted joint at its lower end and slipper blocks C free to move in the slotted portion D of the gear lever, allows universal movement and freedom of motion.

When the direct drive clutch is engaged the lay shaft is rendered idle by the disengagement of its driving gears. These gears are re-engaged when the lever is moved out of the high speed slot and carried transversely to engage either the second or first speeds forward, or the reverse.

The small handle E, close to the segment, is employed to bring into action the ratchet sprag, with which all Napier cars are equipped. The device is so arranged that when the handle is turned and dropped, to engage the sprag, the reverse slot in the segment is blocked so that it is impossible



SHOWING THE NAPIER'S NEW SELECTIVE SYSTEM

deemed too great to be justified by the advantage gained. In the case of the new Napier gearset, however, the arrangement is not extremely complicated, while the result of stopping the lay shaft when it is not in use is to get rid of the humming of the idle gears and thus reduce the noise of the gearset considerably when the high gear is in use.

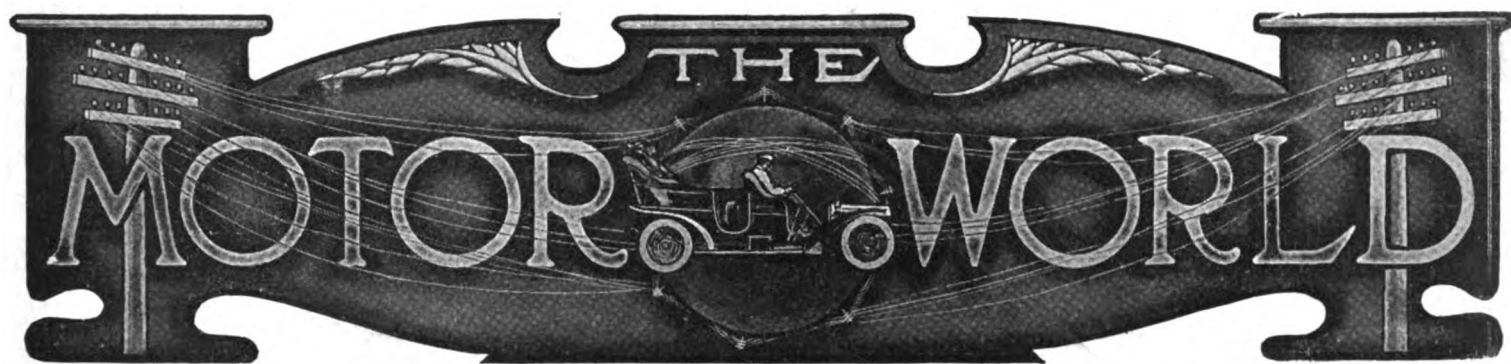
The accompanying illustrations indicate the appearance of the new control segment and also illustrate the method of its operation. The lower end of the shifting lever is pivoted to a bracket and is free to move across the segment and to be pushed into either of the slots, which are marked, to indicate the speeds, 1, 2, 3 and R. From the segment the tube A, shown in the left-hand illustration, connected by the bracket B to the gear shifting lever, is connected with the selective mechanism in the interior of the gear box; as the lever is moved into either of the four slots this sliding tube actuates the gears. The speed lever, having

to engage the reverse gear until the sprag has been released. The band brake segment G is integral with the lever assembly.

#### How Gasolene May Cause Trouble.

It is well understood that water left in the radiator or jackets of a motor car, stored in a cold climate for the winter, is very liable to freeze and cause considerable damage. The fact that gasolene left in the tank or pipes may also cause trouble in freezing weather is not, however, so generally realized. Though gasolene will not freeze, it does collect moisture from the air by condensation, and as the water so collected has a tendency to settle in the lowest points of the piping, it would freeze during very cold weather and might burst the pipes or their connections. It is advisable, therefore, to drain all gasolene as well as water from the car, if it is to be stored in a garage or a place where there is no heat, in order to avoid any possibilities of any such trouble.





## REORGANIZING MORGAN COMPANY

**New Yorker Assumes Presidency of Old Truck Building Concern—Disputed Contract Causes Some Trouble.**

Investigation of reports which have been current regarding trouble within the R. L. Morgan Co., Worcester, Mass., and of a reorganization that is in process, results in a ready explanation of the trouble but a not so ready disclosure of the nature of the reorganization.

The trouble, it transpires, was less serious than appeared on the surface and arose from a disputed contract which generated so much personal heat that a keeper was placed in the Morgan plant at Worcester, at the instance of Blake & Johnson, of Waterbury, Conn. This firm made some motors for the Morgan company which the latter declined to accept, alleging that they were not according to contract. When payment of the account, \$3,900, was refused, the resort to law followed. It is stated, however, that an amicable adjustment now is under way.

The Morgan company has been building trucks for several years and recently was granted a Selden license; a number of strong men of Worcester are financially interested in it, but when Henry E. Whitcomb, the treasurer, was asked concerning the trouble and the reported reorganization, he referred the inquirer to Clair Foster, in New York, Foster recently having become president of the Morgan company. Mr. Foster, who is water register for the city of New York, and who is largely interested in the Standard Plunger Elevator Co. and other concerns, is, however, rarely at the Morgan company's New York office, 40 West 60th street. He is a busy man and could not be seen, but over the 'phone and through Frank F. Weston, the Morgan company's New York representative, he recited the cause of the trouble as stated and while admitting that reorganization of some sort is in process he would give no

information regarding it. Reports have associated the names of Hugh Chalmers and Carl H. Page, Chalmers' New York representative, with the reorganization movement, but both sides deny and decry the reports which appear to have been founded on shadows. Although unfamiliar with automobile affairs, Mr. Foster, the new president, has the reputation of being a first-class organizer and apparently is expected to put the Morgan company in a position where it almost rightfully belongs.

### Michigan Men Reach Into Rhode Island.

The Grant & Wood Co., of Chelsea, Mich., which was organized in May last with \$1,000,000 capital and which took over the Grant Automatic Machine Co., of Cleveland, Ohio, has acquired the Potter & Johnson Co., of Pawtucket, R. I., a \$1,500,000 corporation engaged in the same line of industry—the manufacture of automatic machinery and machine screw parts. For the present the Pawtucket plant will be continued, but the headquarters of the amalgamated companies will be located in Detroit. W. E. Flanders, president of the E-M-F Co., is one of the directors of the Grant & Woods Machine Co., of which his right hand man and counsel, H. M. Brownson, is president and general manager, and A. O. Smith, the Milwaukee parts manufacturer, vice-president.

### Great Southern Goes to Half Million.

The Great Southern Automobile Co., of Birmingham, Ala., of which E. F. Enslen is president, and which is the only company in the Southern tier now manufacturing automobiles, has increased its capital stock from \$100,000 to \$500,000. The new money is to be used for improvements of the plant.

### Will Market the Henry Output.

Henceforth the Henry car will be marketed by the Henry Motor Sales Co., which has been formed for the purpose and which has located at 1549 Michigan avenue, Chicago. It will have to do with the sale of the entire output of the Henry factory, which is in Muskegon, Mich.

## FINAL APPEALS IN SELDEN SUITS

**Battle of Legal Talent Lasts Three Days and Court Grants Extra Time—Working Models Introduced.**

During the past three days oratorical eloquence, entwined with legal logic and technical lore, and illustrated by working models, has filled the United States Circuit Court of Appeals for the Second Circuit in the Post Office building in New York, where the final argument for and against the validity of the Selden patent have occupied the attention of Justices Lacombe, Noyes and Ward.

Yesterday (Wednesday) the flow of eloquence ceased long enough for the court and counsel to visit No. 45 Barclay street and examine some historic and precious original exhibits—cars and engines—in the case that are stored at that address. Originally the court, which sits but three hours daily, gave each side 4½ hours in which to present its argument, but on Tuesday it granted each an additional hour on Friday, when the heaviest legal artillery will be brought to bear in the closing arguments.

The appeals being heard are those in the Ford-Wanamaker-Gude and the Panhard-Neubauer cases, in all of which the lower court decided in favor of the Selden patent, which in the proceedings is represented by the Columbia Motor Car Co., as plaintiff, though, of course, all the weight of the Association of Licensed Automobile Manufacturers is behind the latter. Being appeal cases, no new evidence is being introduced, but the employment of working models by both sides to illustrate points of their arguments has added a touch of human interest and served to illuminate otherwise dry proceedings. The testimony which is being reviewed is impressive in volume and has been brought to court in books, satchels and trunks. Of the court, Justice Noyes appears to be following the case most closely, his questions,

## THE MOTOR WORLD

addressed to both sides, being frequent and pointed.

Of the principals directly involved only Henry Ford and James Couzens, of the Ford Motor Co., have been in attendance at the hearings. Alfred Reeves, general manager of the A. L. A. M., and Hermann F. Cuntz, the association's patent expert, have represented the "other side"—the Selden side. There has been present, however, a great array of attorneys, forty or more, representing companies which have been or may be sued for the infringement of the patent, and they have followed the arguments with the keenest attention.

Of the counsel directly engaged, the defendants are represented, the Ford company by Edmund Wetmore, Livingston Gifford and W. Benton Crisp, and the Panhard interests by Frederic R. Coudert. Mr. Gifford consumed all of the 4½ hours originally allotted to his side and Mr. Wetmore will use the extra hour on Friday for the closing argument. For the plaintiffs and in favor of the Selden patent, S. R. Betts made the opening address; he was followed by W. A. Redding and Frederic P. Fish, whose argument will carry over and close the case on Friday. The other Selden attorneys are Edward Rector, of Chicago, and J. W. Peters, of New York.

### Old Victor Succeeded by a New One.

The Victor Motor Truck Co., of Buffalo, N. Y., last week filed a certificate of voluntary dissolution and immediately thereafter another and larger company of the same name was incorporated with \$250,000 capital stock, it being the intention of the new company to greatly enlarge the size and scope of the business. The Victor factory is located on Niagara street near Potomac avenue, Buffalo, and is under the superintendence of Christian Miller, who has been engaged with motor trucks for some eight years. T. Ross Lippard, at one time connected with the H. H. Franklin Mfg. Co., of Syracuse, is the general manager.

### Heinze May Leave Lowell for Detroit.

It is not unlikely that the plant of the Heinze Electric Co., of Lowell, Mass., will be removed to Detroit, Mich. Congressman Butler Ames, of Massachusetts, who is interested in the Heinze company, made the announcement in the course of an address to the Detroit Board of Trade last week. He stated that he had heard so much of Detroit's "gasolene aristocracy" that he had spent several days in the city seeking to effect arrangements to remove the Heinze plant bodily from Lowell.

### Otis Cook Quits the Federal Service.

Otis R. Cook has resigned the general management of the Federal Rubber Co., of Milwaukee, Wis. Cook, who long has been one of the well known figures of the tire industry, has not yet made known his plans for the future.

## COULDN'T CARRY ANHUT'S LOAD

### Even Elimination of His Name Did Not Help Barnes Company and it Fails—Assets Questionable.

Having succeeded to the business of the embarrassed Anhut Motor Car Co., only a few weeks since, the Barnes Motor Car Co., of Detroit, Mich., was petitioned into bankruptcy on Thursday last, 17th inst, by Frank Howard, of that city, who had bought up claims against the company aggregating \$34,000. William M. Walker, its president, was appointed receiver, and he hopes in some way to obtain assistance in continuing operations, but the prospects of the creditors recovering any considerable sums are not very promising. The liabilities amount to \$64,242.33 and the assets to \$143,540.25, of which \$10.32 represents the cash in bank.

Many of the assets, it is frankly admitted, are of a doubtful character. The assets are made up chiefly of parts, machinery and unfinished cars at the plant, 510 Howard avenue, Detroit, valued at \$21,500; notes due, \$2,116; due on open accounts, \$26,571.23, in which is included about \$20,000 in fire, insurance policies, and \$50,000 in real estate and a factory in Chatham, Ont., which, plant, however, was never operated and the title to which is clouded and can be established only by litigation. The factory on Howard street, Detroit, was leased property.

The blame for the crash is laid at the door of State Senator John N. Anhut, who organized the Anhut company and created something of a splash by announcing a six-cylinder car listing at \$1,700. Anhut is a young man and in addition to having political ambitions he appeared to be imbued with ideas of "high finance" which, according to reports, helped to line his own pockets while the company was reduced to such straits that it was forced to ask for an extension. The young Senator was rather vividly and at great length exposed by the Detroit press. When his name became a detriment instead of a help to the company, others stepped in, changed its title to Barnes Motor Car Co., and tried hard to patch up the wreck. That they were unsuccessful, the bankruptcy proceedings are sufficient evidence.

### Fisk Facilities to be Greatly Enlarged.

Once more the Fisk Rubber Co. has found it necessary to enlarge its already large plant at Chicopee Falls, Mass., contracts having been let for a steel and brick addition, 187 by 36 feet, four stories in height. A new engine room also is being constructed and the boiler house enlarged. The enlargement will add about 2,000 square feet of floor space to the Fisk plant, 75

per cent. more power capacity, 60 per cent. more to the mills and calenders and will increase the machine shop capacity about 30 per cent. A new 1,200 horsepower engine is to be installed and also 300 horsepower additional electric equipment. These additions and alterations will permit of an increase of about 40 per cent. in the output of Fisk tires. It is expected that the new building will be completed and the machinery installed by January 15th next.

### Goodyear Takes Over Durham Plant.

The purchase of the Durham Rubber Co., of Bowmansville, Ont., by the Goodyear Tire & Rubber Co. of Canada, Ltd., of Toronto, finally has been consummated and the new owners already are preparing to enlarge the Bowmanville plant and otherwise to reach out for more of the Canadian tire business, of which it is claimed it secured 41 per cent. during the last year. Branches are to be established in Montreal, Vancouver and Winnipeg. F. A. Seiberling, the head of the Goodyear company in Akron, Ohio, is president also of the Canadian company; L. C. Van Beder is vice-president, and C. H. Carlyle, secretary and treasurer.

### Two Tire Reductions Already Effective.

In sympathy with the reduced price of rubber and the forthcoming reduction in the price of pneumatic tires, the price of the solid rubber article also is coming down. The Firestone Tire & Rubber Co. made the first move on Thursday last when it announced an immediate reduction of 10 per cent. on its side-wire tires. On the same day the Michelin company also "stole a march" on the other pneumatic tire manufacturers by reducing its prices, the new figures becoming effective that day. The other makers had set December 1st as the date when their revised lists would become operative.

### President's Troubles Involve His Company.

Judge Carpenter in the United States District Court has appointed the Chicago Title & Trust Co. receiver of the Standard Auto Supply Co., Chicago, Ill. Liabilities are scheduled at \$130,000 and the assets at \$75,000. This action is the outcome of bankruptcy proceedings instituted recently against Louis Bergman, president of the company. He obligated himself for the purchase of considerable material, and the creditors, fearing that his difficulties would embarrass the company, asked for the receiver.

### To Make Clark Wagons on Large Scale.

The Clark Delivery Car Co., of Chicago, which recently increased its capital from \$5,000 to \$150,000, intends to greatly enlarge its output and the scope of its operations. Its new light delivery truck already is ready for the market. Senator A. C. Clark is president of the company and William C. Smith, secretary and treasurer.

**KLAXON AGAIN BLOCKS KAUFMANN'S**

**Big Pittsburg Firm Can't Even Give Orders on Third Parties—Fined for Thus Evading Injunction.**

There has been no let-up in the Lovell-McConnell Mfg. Co.'s unusually thorough and vigorous campaign against all who trifle with the price of its Klaxon horns. Heretofore these suits for violation of the patent license, which fixes the price at which the horns may be sold at retail, have been in the nature of injunction proceedings which in every case have resulted successfully.

These suits have been unusual in that they have restricted the offenders from not merely selling Klaxon horns at any price but from purchasing or using them in any way or at any cost. Last week, however, the campaign took a new turn when Kaufmann Brothers, proprietors of a large department store in Pittsburg, were brought before Judge Young, in that city, and fined for contempt of court, the contempt consisting of having violated an injunction forbidding them to sell, use or in any way deal with Klaxon horns. This injunction was granted on April 21st last and shortly thereafter the Lovell-McConnell Mfg. Co. was advised that the Pittsburgers still were selling Klaxons. When they secured the necessary evidence, and despite the prominence of the firm involved, they promptly instituted contempt proceedings.

The case graphically illustrates how far reaching are the effects of an injunction in the hands of those possessed of desire and intention to make the most of it, for in the Pittsburg case the evidence showed:

First—That Kaufmann Brothers actually had issued orders to all employees of the store not to sell Klaxon horns.

Second—That the sale was made by an employe who should have known of this order.

Third—That the Klaxon sold was not in stock in Kaufmann Brothers' store, and was not delivered from that store, but was obtained on Kaufmann Brothers' order from a third party.

Notwithstanding all these special circumstances, Judge Young found that such sale was a violation of the injunction and imposed upon Kaufmann Brothers a fine for the contempt they had thus committed.

**Names that Caused Undesirable Confusion.**

Due to the publication of reports of the failure of the Pennsylvania Motor Car Co., which did a retail business at 128 North Broad street, Philadelphia, and the manager of which disappeared, Manager Page, of the Pennsylvania Auto-Motor Co., of Bryn Mawr, Pa., manufacturer of the Pennsylvania car, states that considerable unde-

sirable confusion has arisen, the Bryn Mawr concern being mixed with the Philadelphia retailers, when no connection whatsoever existed between them, which fact the former is anxious to have generally known. The Philadelphia people did not even handle the Pennsylvania car.

**Imposing Plans for California Plant.**

Published plans for the plant for the "A" Automobile Mfg. Co., which recently secured a ten acre site in Sacramento, Cal., are of an impressive character. They depict seven buildings, all of steel and concrete construction, the administration building alone being a three story structure, 90 x 270 feet. The machine shop and the foundry each will be 90 x 270 feet, the assembling room 150 x 230; the wood working shop 90 x 400, the receiving and shipping building 90 x 400, and general store room 150 x 230 feet.

**Credit Association to Repeat Banquet.**

The Automobile Trade Credit Association has programmed its annual banquet to occur on January 18th, during the second or commercial vehicle week of the Madison Square Garden show in New York. The function is to be conducted on a much larger scale than those of previous years.

**Dayton Truck Secures a Factory.**

The recently organized Dayton Auto Truck Co., of Dayton, Ohio, has leased a plant in that city at First avenue and Taylor street. The necessary equipment is being installed and it is expected that the first Dayton truck, as the product will be styled, will make its appearance before the end of the year.

**LaDue to Make Tops in Toledo.**

The LaDue Auto Top Co. has been formed in Toledo, Ohio, and is equipping a plant for the manufacture of tops and trimmings. Robert M. LaDue, who had long experience in the business in Detroit, is the moving spirit in the enterprise.

**Dr. Dusseau Displays His Car in Toledo.**

The Dusseau Fore & Rear Drive Auto Co., which was recently organized in Toledo, Ohio, has set up at 235 Erie street. Dr. S. V. Dusseau, the inventor of the car, which is being exhibited at that address, is president of the concern.

**Hunter Becomes Maytag-Mason's Manager.**

B. B. Hunter, of Waterloo, Ia., has purchased an interest in the Maytag-Mason Automobile Co. of that city. He will become general manager of the company.

**Gorton Joins Timken-Detroit Selling Staff.**

C. E. Gorton, formerly vice-president of the Western Malleable Iron Co., has joined the selling staff of the Timken-Detroit Axle Co. He will represent the latter on the road.

**MATHESON IS AGAIN ON ITS FEET**

**Reorganization Completed and Receiver Discharged—One of the Receivers Becomes President of Company.**

The Matheson Automobile Co., which marketed the Matheson car, has taken over the Matheson Motor Car Co., which made it, and henceforth the first named company will both manufacture and sell the Matheson product. This transaction was authorized by the Court of Common Pleas of Luzerne county, Pa., on Thursday last, 17th inst., and terminates the receivership of the Matheson Motor Car Co., which has existed since last July. The court's action took the form of a final decree confirming its order of October 31st, to the receivers, W. C. Sheperd and Asher Miner, to transfer and convey to the Matheson Automobile Co. all the property, rights and franchises of the Matheson Motor Car Co. The selling company had not become involved in the embarrassment but was reorganized and its capital increased to permit of the new arrangement.

Following the discharge of the receivers, the stockholders of the reorganized company met in Wilkes-Barre, Pa., and elected the following directors: W. C. Sheperd, J. W. Hollenback, Asher Miner, W. H. Conyngham, John A. Turner, W. H. Son, John C. Bridgman, R. Nelson Bennett, I. M. Thomas and C. W. Matheson, of Wilkes-Barre; M. W. O'Boyle, of Pittston; Henry Hess, of Philadelphia; E. S. Fretz, of Pottstown; J. B. Russell, of New York, and Cortez Jennings, of Towanda.

The trustees in turn chose W. C. Sheperd, president and general manager; J. W. Hollenback, vice-president; E. F. Matheson, secretary, and Henry H. Pease, treasurer. The president is the same man who served as one of the receivers and he is preparing to relinquish his other interests in order to devote himself wholly to the automobile business.

The paid in cash capital of the Matheson Motor Car Co. was \$350,000 and the bond issue \$200,000. The paid in cash capital of the Matheson Automobile Co., which was the New York selling company, was \$150,000. Seven hundred thousand dollars new money has been added to the reorganized company in the form of \$595,000 first preferred stock issued and \$105,000 bonds issued. The new money gives the reorganized company a paid in capital of \$1,100,000 plus the bond issue of \$300,000. The authorized stock and bond issues of the company are \$1,000,000 first preferred stock, second, \$400,000 stock and \$1,250,000 common stock and \$300,000 bonds.

During the period of the receivership the factory at Wilkes-Barre continued operations and now is in position promptly to

till orders for both its four and six cylinder cars, both of which are impressive creations of undoubted quality.

The New York salesrooms and garage on Broadway, near 62d street, probably will be continued as a retail branch to supply the metropolitan district. The wholesale sales department, however, has been transferred from New York to Wilkes-Barre.

#### Timken Takes Exception in Lindsay Suit.

Exceptions to the report of Master of Chancery Edward Daniels on the issues raised by the cross bill in the case of the Timken Roller Bearing Axle Co., of Canton, Ohio, against Thomas J. Lindsay and Willard Harmon, of Indianapolis, Ind., were filed in Indianapolis on Saturday last, November 19th. The exceptions protest against the entire report of the master, which was favorable to Lindsay and Harmon, holding that in the last three years the Timken company had infringed the patents Nos. 612,360 and 748,760, held by Lindsay and Harmon, and that the patentees are entitled to an accounting.

The action is the outcome of a suit in equity brought against the Timken company for breach of contract. The Timken company, it is claimed, had agreed to pay royalties to Lindsay and Harmon for every axle in which their ideas were incorporated, and to mark each axle with the name of the patentees. The patentees claim that these agreements were not carried out by the Timken company, and in particular that no royalties have been paid to them in 1908, 1909 and 1910. The patents involved are the so-called "Lindsay axle patents," once alleged to be "foundation patents" which would rival the famous Selden patent. At various times several "scares" were born of them, but even the Timken company finally became convinced of their lack of value.

The exceptions filed by the Timken company assert that the report of the master of chancery enlarges the scope of the patents issued to Lindsay, and object to the statement contained in said report that the plaintiff should be required to account for royalties which were to have been paid in the three years 1908 to 1910, inclusive. A further exception contends that the court had no authority to appoint the master, because the issues of the cross bill are alleged to be out of jurisdiction of the United States Circuit Court.

#### They Will Exhibit in Chicago, Too.

In the report of the line-up of the Motor and Accessory Manufacturers at the New York and Chicago shows, the Diamond Rubber Co. and the Apple Electric Co. were recorded as exhibiting both weeks in New York and not at all in Chicago. As a matter of fact, the Diamond company is booked for both weeks at both shows and the Apple company for New York and for the first or pleasure car week at Chicago.

#### THE WEEK'S INCORPORATIONS.

Detroit, Mich.—Ajax-Grieb Rubber Co., under Michigan laws, with \$400,000 capital. Corporators—W. J. Grieb and others.

Lancaster, N. H.—Lancaster Garage & Auto Co., under New Hampshire laws, with \$6,000 capital; to operate a garage and renting service.

Milwaukee, Wis.—Milwaukee Automobile Dealers' Association, under Wisconsin laws, without capital. Corporators—Robert G. Bates and eight others.

Seattle, Wash.—Franklin Motor Co., under Washington laws, with \$40,000 capital; to deal in automobiles. Corporators—H. A. Baird, Walter French.

Cleveland, Ohio—Gyro Motor Co., under Ohio laws, with \$10,000 capital. Corporators—C. W. Hunt, W. L. Cary, H. R. Palmer, Plym C. Davis, J. W. Courts.

Los Angeles, Cal.—Siegmond Motor Car Co., under California laws, with \$50,000 capital. Corporators—E. F. Siegmund, M. Ray Costerisan, George F. Costerisan.

Dayton, Ohio—Dayton Taxicab Co., under Ohio laws, with \$25,000 capital; to operate a garage, taxicab and renting service. Corporators—J. D. Hodson and others.

Boston, Mass.—Rambler Auto Co. of New England, under Massachusetts laws, with \$10,000 capital; to deal in automobiles. Corporators—Perry Rockwell, Arthur P. Teele.

Bucyrus, Ohio—Sommer Motor Co., under Ohio laws, with \$125,000 capital; to deal in automobiles. Corporators—L. A. Sommer, L. M. Smith, S. S. White, F. L. Hopley, D. F. Flohr.

Boston, Mass.—International Automobile Association, under Massachusetts laws, with \$100,000 capital; to deal in automobile supplies. Corporators—W. T. Morgan, Chicago, Ill., S. M. Booth, Boston.

Jersey City, N. Y.—Remington Tire & Rubber Co., under New Jersey laws, with \$100,000 capital; to manufacture rubber products. Corporators—H. G. Remington, D. J. Reynolds, C. S. Cairns, Minneapolis, Minn.

Rochester, N. Y.—The Freckleton Palace Stables, Inc., under New York laws, with \$50,000 capital; to operate a garage and livery stable. Corporators—G. W. Freckleton, T. E. Freckleton, W. H. Rowerdinck, Rochester.

Columbus, Ohio—Packard Taxicab & Auto Livery Co., under Ohio laws, with \$30,000 capital; to operate taxicabs. Corporators—Louis M. Gillespie, G. L. Sitgreaves, G. F. Castle, N. Hutchinson, A. Alexander.

Houston, Tex.—Texas Automobile Co., under Texas laws, with \$10,000 capital; to deal in automobiles. Corporators—R. H. Thompson and Sterling Myer, of Houston, and E. R. Richardson and F. W. Blackburn, of San Antonio.

Vernon, Conn.—Buick Garage Co., under Connecticut laws, with \$25,000 capital; to operate a garage and deal in automobiles. Corporators—Thomas F. O'Loughlin, of Vernon, and David B. and Maud I. Roberts, of Ellington, Conn.

Oakland, Cal.—United Electric Vehicle Co., under California laws, with \$50,000 capital; to deal in automobiles and other vehicles. Corporators—W. D. Vance, R. Scraba, W. Hughes, F. R. Fageol, R. H. Morris, all of Oakland.

Richmond, Va.—Southern Motor Car Co., under Virginia laws, with maximum capital of \$25,000, minimum \$1,000; to do general automobile business. Corporators—L. M. Lee, R. E. Eastwood, C. W. Yeamans, all of Richmond, Va.

New York City, N. Y.—Otto Motor Car Co., under New York laws, with \$50,000 capital; to manufacture engines, motor vehicles, motors, machinery, etc. Corporators—J. J. McDonald, New York City; J. M. Lang, H. A. Bedell, Brooklyn, N. Y.

New York City, N. Y.—Madison T. B. Washington Co., under New York laws, with \$100,000 capital; to manufacture automobiles, machinery, electrical and otherwise. Corporators—M. T. B. Washington, M. W. Gilbert, J. S. Brown, Jr., all of New York City.

Hartford, Conn.—Mythib Rubber Tire Preserver Co., under California laws, with \$400,000 capital; to manufacture tire preserving product "Mythib." Corporators—C. H. Chaffee, East Orange, N. J.; Daniel H. Haneckel, Brooklyn, N. Y.; Thomas G. Prioleau, New York City.

Charleston, W. Va.—Remington Standard Motor Co., under West Virginia laws, with \$1,000,000 capital; to manufacture Manly motor trucks under letters patent. Corporators—Philo E. Remington, Emerson Brooks, of Newark, N. J.; F. M. Staunton, Charleston, W. Va.; George A. Grounds, Pittsfield, Mass.; Eliphalet Remington, Ilion, N. Y.; DeWitt Bruce, Lenox, Mass.; Harrison B. Smith, Charleston, W. Va.

#### Increases and Decreases of Capital.

Sandusky, Ohio—Vim Motor Mfg. Co., from \$25,000 to \$60,000.

Detroit, Mich.—Herreshoff Motor Co. from \$140,000 to \$230,000.

Carthage, Ohio—Jewel Carriage Co. increase from \$250,000 to \$450,000.

Oklahoma City, Okla.—Overland Automobile Sales Co. decrease to \$35,000.

Johnstown, Pa.—Johnstown Automobile Co. increase from \$10,000 to \$100,000.

Birmingham, Ala.—Great Southern Automobile Co. increase from \$100,000 to \$500,000.

Lansing, Mich.—W. K. Prudden & Co., manufacturers of automobile wheels, from \$350,000 to \$500,000.



## IN THE RETAIL WORLD.

The Seaboard Auto Storage Co., of Norfolk, Va., has filed a petition in voluntary bankruptcy.

D. C. Baker, of Burton, Tex., has invaded the neighboring town of Brenham and built a garage there.

Wright Elsom, Jr., last week broke ground for a new garage in Oak Park, Ill., where Mitchell cars are to be shown.

Isaac A. Schwarz has purchased the property at 228-230 North 15th street, Philadelphia, Pa., and will erect a garage thereon.

E. V. Kirby is building a garage on Market street, Urbana, Ill. It is 76 x 125 feet, one story high, and will cost when completed \$8,000.

The Philadelphia branch of the Michelin Tire Co. has been removed from 320 North Broad street to 1304-1306 Race street, in the Steppacher building.

The Maine Supply & Garage Co. is erecting a garage on Lower Lisbon street, Lewiston, Me. City Marshall Cailler and others are interested in the project.

The Polson Implement Co., of Seattle, Wash., has taken over the Washington agency for Regal cars. In addition it will continue to handle the American line.

Foster & Co., Hartford distributors of the Regal and Rambler cars, have taken possession of new salesrooms at 10 Jefferson street. The garage is a concrete structure.

The Brainerd Auto Co., which just has been formed in the Minnesota city of that name, will act as distributor of Overland cars. John Ernster is president of the company.

The name of the Suburban Auto & Garage Co., 125 East Seventh street, Cincinnati, Ohio, has been changed to Kruse Bros. Edward Kruse, the manager, is the Marmon agent.

Work is progressing rapidly on the new steel garage which is in course of construction on Locust avenue, Long Beach, Cal. When completed the building will be occupied by the Pacific Garage.

G. E. & H. J. Habich, New England agents for the Cole "30," have taken possession of their new salesrooms on Massachusetts avenue, Boston, Mass. They will also display Hart-Kraft trucks.

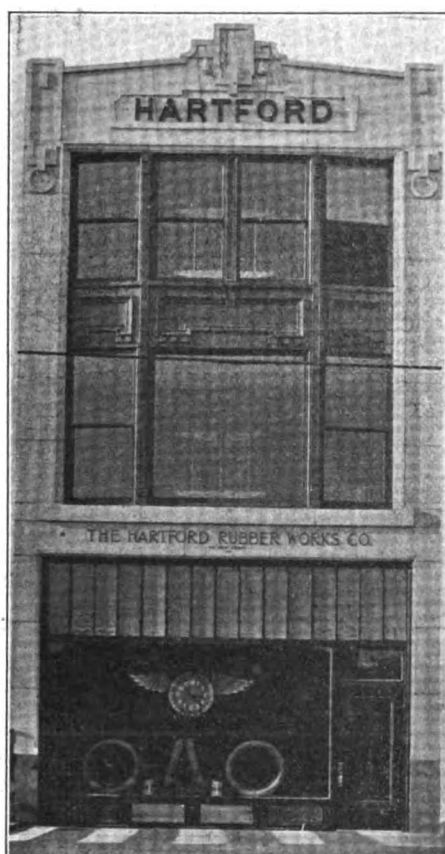
W. W. Land, formerly of the Ford Auto Co., has organized the Land Auto Co., in Little Rock, Ark., with headquarters at 407 West Fifth street. He will deal in Ford cars and conduct a general garage service.

M. M. Mudd, of St. Louis, Mo., has purchased the Palace Garage, at 614 State street, Fremont, Ohio, and is building a new cement addition 45 x 90 feet, to be used as a repair shop. He is handling the Buick line.

The Roman Automobile Co., of 1740 Market street, has leased the showrooms and garage at present occupied by the Auto-car Co., at 240 North Broad street, Philadelphia, and will shortly establish itself in the new quarters.

Arthur Willoughby, of Hutchinson, Kan., has purchased the entire business of the Salt City Motor Car Co., and will continue the business under the old name. The employees of the Salt City concern have been retained by the new owner.

Constantine Link, of Springfield, Ohio, has purchased for the sum of \$10,000 the



HARTFORD TIRE'S NEW BOSTON HOME  
Branch Store at 863 Boylston Street

property located on Fountain avenue, between Columbia and North streets, where he will erect a garage. The ground is 75 feet wide and 198 feet deep.

Incorporated with a capital of \$10,000, the Texas Automobile Co. has opened salesrooms at 904 Main street, Houston, Tex., where it will show Packard cars exclusively. R. H. Thompson is president and general manager, and Sterling Myer the secretary and treasurer.

J. G. Patterson, owner of the Capital Machine & Auto Co., of Sacramento, Cal., has sold his interest to George W. Hipple, of Oakland, Cal., and the name of the company has been changed to Superior Machine & Auto Co. B. B. Treat is the man in charge.

Maine's first taxicab company went into the hands of a receiver on November 16th, with liabilities of \$20,000 and assets estimated at less than \$5,000. The concern is known as the Taxicab Co. of Maine, with headquarters at Portland, while the receiver appointed is George F. Gould, of Portland, Me.

Organized under the laws of Indiana, the Premier Sales Co., of Indianapolis, Ind., has opened up in the latter city, succeeding the Gibson Automobile Co. Its salesrooms at 233-235 North Pennsylvania avenue will be under the management of Henry L. Johnson, former manager of the Boston branch of the Premier company.

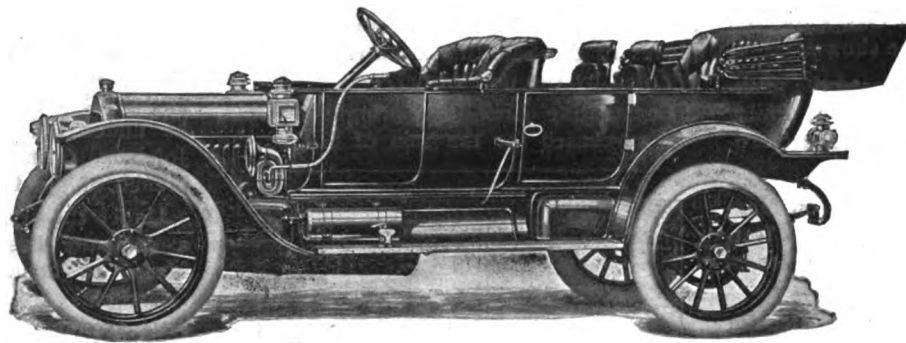
Under the style Taylor Motor Sales Co. a company has been formed in Boston, Mass., to handle Herreshoff cars. The salesrooms are located at 157 Massachusetts avenue. John I. Taylor, president of the new company, is the owner of the Boston American baseball club, while the vice-president is A. H. Mitchell, a well-known sporting writer.

The business of the American Garage Co., of St. Louis, Mo., has been absorbed by its neighbor, the Pope-Hartford Motor Car Co., of 5883-5891 Delmar boulevard, and its garage building with all contents has been joined to the garage of the Pope-Hartford company. The latter company is capitalized at \$166,000, and is under the management of Tom J. Thaxton and Ira L. Bell.

T. Edward Oakes, of the firm Thomas Oakes & Sons, 11 Haynes street, Hartford, Conn., has gone into business on his own account and opened a repair shop under the style T. Edward Oakes & Co. He is the president also of the Hartford Automobile & Boat Supply Co., which latter company will be affiliated with the Oakes concern and do business at the same address, 183 Allyn street.

The H. O. Harrison Co., of San Francisco and Los Angeles, Cal., has purchased the Mantell Motor Co., of Seattle, Wash., and will handle the Peerless and Everitt "30" cars. C. S. Mantell, former owner of the absorbed company, has been retained to act as sales manager for the Everitt line, while Jack Gardener Tennant will take charge of the Peerless cars. The salesrooms of the company are at 301-303 East Pike street.

Attorney Robert A. Mowbray, of Baltimore, Md., has been appointed receiver with a bond of \$1,000, of the Royal Auto Co., of 201 West Biddle street, in bankruptcy proceedings instituted before John Stockbridge of the Circuit Court. The petition in bankruptcy had been filed by Frank L. and Nellie C. Hiser, stockholders of the company, and stated that the concern practically has suspended business; it asked the court to dissolve it. The company was incorporated January 31st last, with an authorized capital stock of \$20,000.



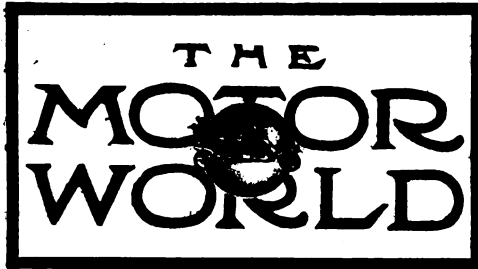
## THIS IS THE NEW 40

**T**HIS is the new car—the design produced by our experienced engineers unhampered by precedent, seeking to produce the best type of American car. With five-passenger torpedo body it is priced at \$3,000.00, with seven-passenger body at \$3,200.00. Within the limits of human fallibility this car is intended to represent the best and the latest in engineering, combined with the best in the body builder's art. With so lofty an ambition to guide our engineers, it is with pride that we announce that the essential characteristics of all White Gasoline construction are retained—the cylinders are cast en bloc and the long-stroke engine is continued. We consider it the best tribute to our thirty-horsepower White cars, that the experience of the world's engineers has been able to suggest no improvement in our new engine, and that it is only a larger type of our first design.

Sample cars will be shown at all  
branches on or before November 25th

**The White**  **Company**

830 East 79th Street, Cleveland



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### The Advertising of a Tourists' Agency.

If the several energetic and enterprising gentlemen who comprise the private corporation styled the Touring Club of America are not chuckling in their sleeves, their risibilities sadly are in need of a tonic. For if ever a party of men banded together for the pursuit of the dollar richly earned the right to chuckle it is the Messrs. Touring Club of America. Their "publicity stunt" in calling a conference of state officials to discuss laws relating to automobilists and in actually getting some of them to gather for the purpose in the "club's" office was quite the cleverest job of the sort that has been accomplished in a considerable term of years.

The advertising thus secured was worth very many thousands of such luncheons as were purchased for the "come-ons," and is sufficient to make the average professional press agent turn not merely green but purple for very envy. It was a coup of the undeniable sort, admirably conceived and

admirably carried out. It is so superior, for instance, to the "special despatches" from Albuquerque and elsewhere recording the travels of the Touring Club's field solicitor which have been mailed to the press for publication, that the wonder is that time should be spent in concocting such trivial if fulsome "despatches."

But while greatly admiring enterprise, cleverness and audacity, it is well to warn the Touring Club that such qualities may be carried too far. Many clever people have been undone by their own cleverness. There are those who appear to fancy that things always are what they seem but who, when light dawns, do not relish the deception and have unpleasant ways of showing it. What, for example, will be the feelings of the state officials who attended the "conference" of the Touring Club of America when they awaken to the fact that the "club" is wholly a commercial venture—a tourists' agency akin to Cook's or Gillespie & Kinsport's and, like them, existing wholly for the purposes of revenue? The officials cannot but feel that they were "taken in" and used for advertising purposes, and if their friends poke gentle fun at them, their friends cannot be blamed. And how many motorists will thank the "club" for leading up to "resolutions" adopted by ten or twelve men favoring the revocation of the motorist's right to use the public highways for all and any infractions of the laws affecting them and even for causes that are not defined by law?

The very title Touring Club of America is so suggestively uncommercial that it has been worth hundreds of thousands of dollars in free advertising to the several gentlemen who are doing business under it; and where they can get such advertising they are entitled to it, but the automobile interests have a right to protest against "publicity stunts," rendered easier because of a name, when their general issues are at stake. Undoubtedly the Touring Club principals intentionally would do nothing to adversely affect these issues, but there are times, as in the present instance, when they cannot prevent it if they would. Their "club," despite its misleading title, is a perfectly legitimate business institution; it probably fills a want, just as does Cook's tourists' agency, and they merit all the profit they may earn, but they should stick to their business and let the bona fide clubs and associations attend to those affairs which are of general or governmental con-

cern and which so easily may be prejudiced by the cry of commercial self-interest.

Incidentally, it would not be a half bad idea if, at the annual meeting of the American Automobile Association next week, resolutions were passed bearing on the unwarranted interference in such matters of commercial "clubs" and strictly business "associations" with misleading titles. It would serve to prevent further confusion in the public mind and in the official minds.

### For the Self-Starting of Motor Trucks.

It long has been admitted that some sort of self-starting device for the internal combustion motor would be a valuable acquisition insofar as its application to the automobile is concerned. The matter has been expressed even more strongly, but it does not matter now. With a few notable exceptions the manufacturers have not seen their way clear to developing just the right system for the purpose, the public has not been particularly insistent in demanding it and, naturally enough, the starting crank has remained. The business sense that governs the development of the commercial vehicle, however, is causing the incidentals of design to be scrutinized in an entirely different way where that type of vehicle is concerned than has been the case with the pleasure car. And it is beginning to appear that discretion soon will teach the need of engine starters if the gas car is to continue long in city service.

It is generally admitted by those who have given close attention to motor truck operation that within city limits the advantages of the gasoline machine are overshadowed in certain respects by those of the electric. For delivery purposes, indeed, the former suffers exceedingly because it is inconvenient to stop and restart the motor during the short waits which constitute such a large proportion of its daily schedule. If the motor is stopped each time, considerable additional labor is imposed upon the driver; if it is kept running, it consumes considerable fuel and oil during the intervals of unprofitable operation. The electric, on the other hand, ceases to draw upon the battery as soon as it is brought to rest, starts upon the single movement of the controller, and makes no demands upon the operator save those incidental to its control while in motion.

To offset this advantage the gasoline machine has other merits not possessed by the electric. Its speed, radius of action,

flexibility and susceptibility to sudden overload demands and prolonged operation are in its favor. But the inconvenience of the hand starting crank still remains one of its most important drawbacks in this connection.

Were the problem of starting a gas engine by mechanical means an insurmountable one the case would be different. As it is there are several thoroughly practical ways in which the object may be accomplished, methods which do not necessarily involve expensive outlays in the first place nor entail serious mechanical complication. There can be no question that such a device is very much needed just at present in the commercial vehicle field, and it remains to be seen whether its possibilities will be developed in season to assist in popularizing the light car for general business uses.

Apropos of the accidents attending the Vanderbilt Cup race, the New York Evening Mail lauded the air races at Belmont Park. It remarked that "one sterling advantage of the Gordon Bennett Cup race in the air over that for the Vanderbilt Cup on the earth lay in the fact that the innocent bystander was reasonably safe." Whether an aeroplane going at 50 miles an hour into the upper tiers of the grandstand would do less execution than an automobile charging into the crowd lined up at the course remains a matter of conjecture. Spectators in the grandstand seats are "reasonably safe" during an automobile race, however, even if those in the field are not, but during an aeroplane race there is no place wholly safe.

E. T. Rosenheimer, the New York motorist who recently was acquitted of a charge of murder has been reindicted for felony in that he failed to stop after colliding with the buggy involved in the original charge, and other motorists periodically are being rounded up in batches for permitting their cars to smoke and for failure to have their rear numbers properly illuminated. But all manner of horse drawn vehicles continue to ply the streets after nightfall, many without lights of any sort, others with lights so improperly placed that they illuminate only the horses' tails. Is it possible that only the laws applying to automobiles are enforceable or that the New York police cannot take an unlighted

## COMING EVENTS

November 19-26, Oakland, Cal.—First annual show of Oakland Automobile Dealers' Association in Idora Park.

November 22-26, Lake Charles, La.—Louisiana Fair Association's racemeet.

November 24, Santa Monica, Cal.—Southern California Automobile Dealers' Association's annual road race; 200 miles.

November 24, Guttenberg, N. J.—Race-meet on Guttenberg track.

November 24, New Orleans, La.—Race-meet under auspices of New Orleans Automobile Club.

November 29-30, New York City—New York Automobile Trade Association's two-days endurance run; 275 miles.

November 26-27, Los Angeles, Cal.—Motordrome races.

November 30-December 1, New York City—Annual meeting of American Automobile Association in Hotel Belmont.

December 1-3, Peoria, Ill.—First annual show of automobile dealers in the Coliseum.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 12-17, Los Angeles, Cal.—First annual "independent" show of Los Angeles Motor Car Dealers' Association at Shrine Auditorium.

December 24-31, Los Angeles, Cal.—Second annual show of Licensed Motor Car Dealers' Association of Los Angeles at Fiesta Park.

December 25-26, Los Angeles, Cal.—Twenty-four hours race at Motordrome.

December 31-January 7, New York City—"Independent" automobile show in Grand Central Palace.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 7-14, New York City—Association of Licensed Automobile Manufacturers' eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 11-12, New York City—Annual meeting of the Society of Automobile Engineers.

January 13, New York City—Annual banquet of the Motor and Accessory Manufacturers at Waldorf-Astoria.

January 14-28, Philadelphia, Pa.—Annual show of Philadelphia Licensed Automobile Dealers' Association in Third Regiment Armory.

January 15-21, Milwaukee, Wis.—Milwaukee Automobile Dealers' Association's second annual show in the Auditorium.

January 16-21, New York City—Association of Licensed Automobile Manufacturers' eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-22, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 18, New York City—Annual banquet of the Automobile Trade Credit Association.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

February 14-19, Dayton, Ohio—Second annual show in Memorial building.

February 15-21, Kansas City, Mo.—Fifth annual show of Kansas City Automobile Dealers' Association.

February 18-25, Minneapolis, Minn.—Minneapolis Automobile Show Association's annual show in National Guard Armory.

February 20-26, Omaha, Neb.—Third annual show of the Omaha Automobile Show Association in Auditorium.

February 24-27, New Orleans, La.—First annual show of New Orleans Automobile Club at Fair Grounds.

February 25-March 4, Toronto, Canada—Annual show under auspices of Ontario Motor League.

February 25-27, New Orleans, La.—New Orleans Automobile Club's annual Mardi Gras racemeet on Fair Grounds track.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 7-11, Des Moines, Ia.—Third annual show of Des Moines Automobile Dealers' Association at the Coliseum.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

or improperly lighted horse drawn vehicle when they see it?

Several railroad officials of national repute are this week in Washington, D. C., assisting in the organization of a national road improvement association. If they will

do something also to abate the deadliness of the grade crossing, they will perform a service that should go hand in hand with all highway improving efforts. Safe roads are as important as smooth ones, and only the final abolishment of grade crossings will make roads safe.



## LONDON SHOW LACKED NOVELTY

**Big and Impressive but Developed No Striking Departures—Trend Toward Block Motors, Worm Drive and Wire Wheels More Apparent.**

Insofar as it is possible to judge by the status of the great and only Olympia show in London, the British industry is living up to its reputation in the matter of building and selling small cars. While the present show, the ninth, which closed its doors on the 12th inst., probably exhibited a greater variety of models than any of its predecessors, one of its most striking features was the prevalence of the low-power four cylinder car.

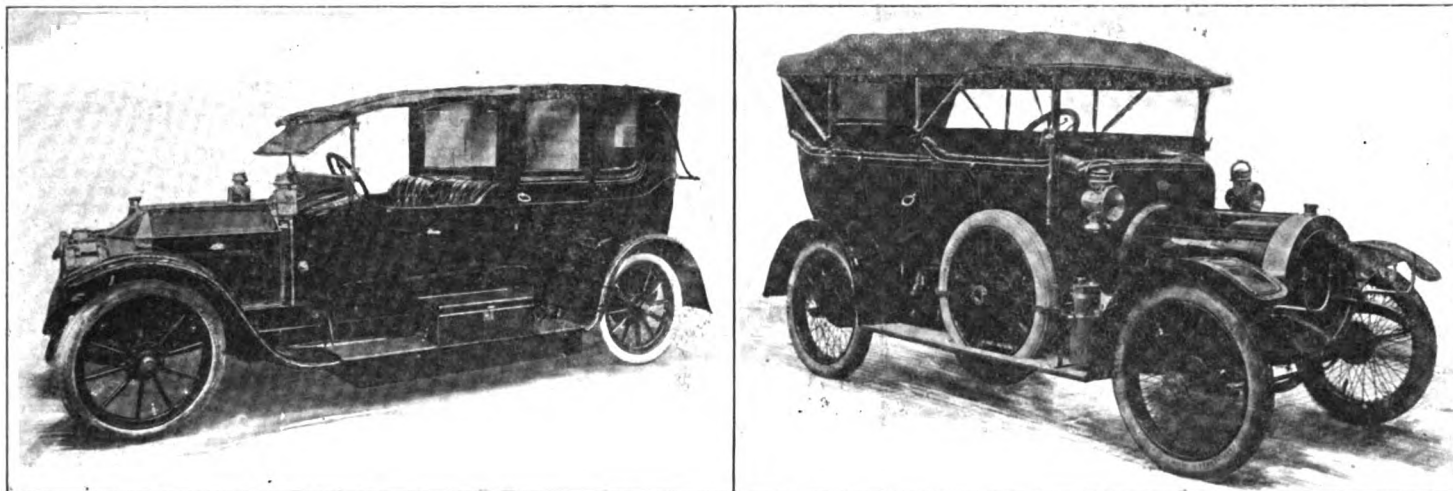
The records of last year's Olympia indi-

this country—there was a total of 409 cars and chassis.

A careful count of the exhibits further shows that 294 machines were British built—or nominally so, at least—while 185 came from France. The United States stood fifth in the list of foreign contributors, with 18 machines. These were contributed by the local representatives of the White, Ford, Overland, Cadillac and Stanley. The United International Motors, Ltd., as the new British representative of the United States Motor Co., is styled, had not come into existence soon enough to secure space in the show. In consequence it was holding a private show in its salesrooms on Wardour street, where about a dozen models, representing the Maxwell, Columbia, Brush, Stoddard-Dayton and Courier lines, were on view. The Mitchell line likewise was on exhibition at the Great Portland street headquarters of the Mitchell-Lewis

duced to 33. But 10 per cent. of chain driven cars survived for the show of 1908, while this year it figures up—or rather down—to two per cent.; in other words, chain drive now appears upon only 12 distinct vehicles of the entire aggregation at Olympia hall.

In other respects, as well, the settlement of questions of design is apparent. The growing use of the block motor already has been mentioned in connection with the increased production of small cars of the better class. In addition to the "little fellows," however, there was perhaps another dozen cars in which block cast engines were mounted ranging upward in power to a nominal listing of 25 horse, for the, so to speak, standard types. In addition to the well known cars of Continental build in which this style of engine has become a fixture, such as the Panhard, Peugeot, Lorraine-Dietrich, Fiat, Lancia and Renault,



TWO EXAMPLES OF HIGH-SIDED BODY CONSTRUCTION—26 H. P. METALLURGIQUE AND 12 H. P. REX

cate that 25 makers staged cars of this type, ranging in power from ten to 17 horsepower. This year's exhibition revealed more than twice as many machines of corresponding pattern. By actual count there were 51 machines of 16.9 horsepower (A. L. A. M. rating), or less, still referring to the four cylinder type. There were many others besides, with ratings of the hyphenated variety ranging, say, from 14-20 to 16-24, that were not included in the enumeration. Of the number mentioned, 28, or practically three-fifths, were of the block type, a large proportion of them embodying such approved features in light car construction as thermo-syphon cooling, magneto ignition and circulating lubrication systems.

Although 111 stands were allotted to the exhibition of complete cars, the additional vehicle displays staged by body builders and others, constituting supplementary exhibits, brought the number of car exhibits up to 139. In these spaces no less than 457 complete cars were shown, or a total of 589 vehicles including chassis. Last year the number was 597, while at the Boston show—the largest held last year in

Motor Co., making an extensive display of four and six cylinder cars.

In point of numbers, the American representation was exceeded by examples of German, Italian and Belgian products, the actual number of machines shown from the three countries being, respectively, 29, 28 and 25. Seven cars of Swiss manufacture and three of Dutch origin also were included among the imported exhibits.

Apparently there is no further question about the supremacy of the gasoline engine as a motive power agent in the heart of the Briton. As compared with two electrics and nine steam cars, produced by three makers, two of whom were American, by the way, there were 578 gasoline cars and chassis on view. Similarly the local demand is now positively settled in respect to the method of final transmission. Out of the total number of cars and chassis no less than 571 were of the shaft driven type. The decline of double chain drive has been strikingly uniform abroad during the past six years. In 1904, 66 per cent. of the gasoline cars were chain driven. In 1906 the percentage was re-

there were the Ford and White, from this country, and such well known domestic products as the Argyll, Armstrong-Whitworth, Gladiator, Crossley, Jackson and Straker-Squire.

The six cylinder motor appears to retain its position as the proper equipment for the car de luxe and hence is found on a relatively small number of productions—not over a dozen to be exact—but invariably in cars of the better class. Its most notable exponents were the Rolls-Royce, Standard, Austin, Arrol-Johnston, Lancaster and Wolseley-Siddley.

Freak motors, once so prevalent at the English shows, were even less prominent than last year. The valveless, which for several years has continued to hold its own despite the odds of most radical construction, retains the distinction of possessing two intercommunicating cylinders, two crank shafts and, of course, no valves, since it is of the two-cycle order of operation. Another example of a promising but little favored class is the Turner motor, which is air-cooled and of the twin cylinder V pattern. This motor, it may be ob-

served in passing, represents the first internal combustion motor to be shown by one of the old-line builders of steam cars. The Gebron motor, with its twin piston arrangement, remains, as of old, as do the Hewitt and Bentall motors, which were exhibited for the first time a year ago. Both are examples of the new school of valve design the former being of the piston type, but so built that the pressure of the exploding gas actually furnishes an impulse to the valve mechanism. In this sense its valves are self-actuating. The Bentall engine has sleeve, or hollow piston, valves, of a different type, which are so arranged that they move at half the speed of the pistons and therefore absorb very little engine power—the more so as they are of balanced construction.

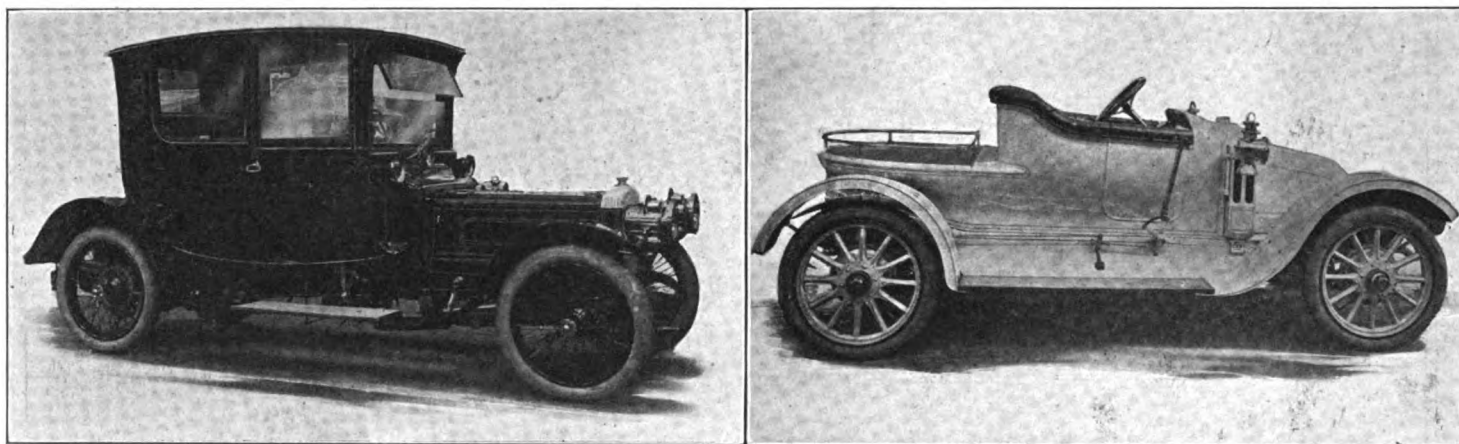
As for the redoubtable Knight, who recently has been again engaged in controversy with the British industry over the

feed to the cylinders. This arrangement also is employed on the Minerva. On the new Mercedes, however, the lubrication of the sleeve valves is taken care of by special feeds direct to the walls the outer sleeve being drilled through to ensure proper distribution. This motor also differs from the other Knight-licensed products in that the sleeves are driven by gearing instead of by silent chain.

Expressing very modern ideas in a most striking way the new Delahaye six deserves to be classed among the extraordinary motor types. It is a combination of the V and block types, its six cylinders being arranged in two banks of three, set at an angle of 30 degrees and all enclosed in a single casting, the valves being entirely enclosed on both sides. The exhaust manifolds are cast integral, so that the motor is unusually free from outward encumbrances.

pump draws from a tank external to the engine and feeds to the distributor main from which the bearings get their supply. The second draws from the safe level point in the crank case, returning all surplus to the tank. The Adler system provides one pump that draws from the sump, and a second that returns the spent oil from the crank case to it. In the Wolseley engine the crank case is without the separate lower reservoir, a settling and straining chamber being provided in an independent tank on the left side of the engine. An independent pump is required to drain the case on this account. Otherwise the system is regular, the feeds being secured by ordinary pump circulation.

In the Albruna and Brown oiling system a pedal on the foot board is provided to enable the operator to deliver an extra supply of oil to the crank case, when required, despite the provision of a nominally auto-



CONTRASTING TYPES—DAIMLER COUPE DE LUXE AND ARROL-JOHNSTON "BOAT BODY"

merits of his so-called valveless engine, there is every indication that his prosperity is increasing. In addition to the Daimler engines of the Knight pattern, Panhard, Mercedes, Minerva and Rover cars were shown equipped with motors of the same sort and built under license. The Panhard-Knight motor is absolutely new, the Mercedes-Knight never before had appeared on British soil, while the Rover was particularly distinguished by reason of the fact that it employed the system in one and two cylinder units.

Again it is written that the Knight motor has been improved, and though the improvement apparently is of a slight and unimportant nature, those who have questioned the advantages of the sliding sleeve valve system promptly indicate that the alteration touches upon the vital point of lubrication, which always has been held somewhat in doubt. By the new arrangement the scoops on the connecting rod ends dip into oil troughs placed under them in the crank case, and the troughs are so interconnected with the throttle lever that they will be raised when the throttle is opened, thus causing the scoops to dip more deeply and increase the rate of oil

Other motors possessing unusual features, though otherwise of normal design, are the new Lancia, in which the pressure for the fuel tank is developed by a plunger pump, instead of an exhaust check-valve; and the Germain, in which the cylinder block is offset no less than  $1\frac{1}{4}$  inches from the crank shaft center, which would seem an extraordinary amount, considering that its bore is only 80 millimeters, or roughly 3-16 inches, were it not for the fact that its stroke is 130 millimeters, or about 5-16 inches. La Buire practice is distinguished by a new six cylinder block motor of 85 by 140 millimeters cylinder dimensions, which also is out of the ordinary in that its cam shaft is driven by silent chain instead of by the usual spur gear arrangement. One of the Humber models also shows the same feature.

The improved lubrication of the Knight motors has been mentioned. Other motors in which new lubrication features were brought out were the Deasy, Adler and Wolseley, in each of which the circulating system is employed with a slight modification. In addition to the regular feed pump, which circulates oil through the bearings, a second is installed. In the Deasy, one

matic system. The new Lancaster models are provided with an unusual lubrication feature whereby oil is pumped to the clutch as well as being circulated through the engine. In the Adler, it may be added, a press-button on the dash sight-feed glass, enables the operator to feed oil directly to the forward universal joint of the propeller shaft, while in the Wolseley the entire gearset is provided with a lubricating system which is fed by an independent pump.

Magneto ignition, of course, is well-nigh universal. What appears to be a new trend, however, is the adoption of the fixed spark arrangement, whereby the control of the timing is taken out of the driver's hands. No less than a dozen makers have adopted this practice on one or more models, among them the builders of the Arrol-Johnston, Star, Thornycroft and A. G. R., in England, and the Darracq, Opel, N. A. G., Delaunay-Belleville and Peugeot, on the Continent. The Germain and N. E. C. cars are equipped with magnetos on which the spark timing is automatically governed.

Thermo-syphon cooling also is growing in favor. No less than 42 makes of car shown at Olympia were equipped with pumpless cooling systems, the system being

in greatest favor with the small block motors, already referred to as one of the features of the show taken as a whole.

In the matter of carburetters, no practical unanimity is observable, and few new styles have been developed. One or two novel arrangements are in use, however, as in the Bell cars, in which upon closing the throttle an extra air port is opened in the intake pipe, whereby provision is made to scavenge the cylinders while coasting. The N. E. C. carburetter is provided with one of the few novelties in the shape of an automatic speed governor which acts on the extra air supply.

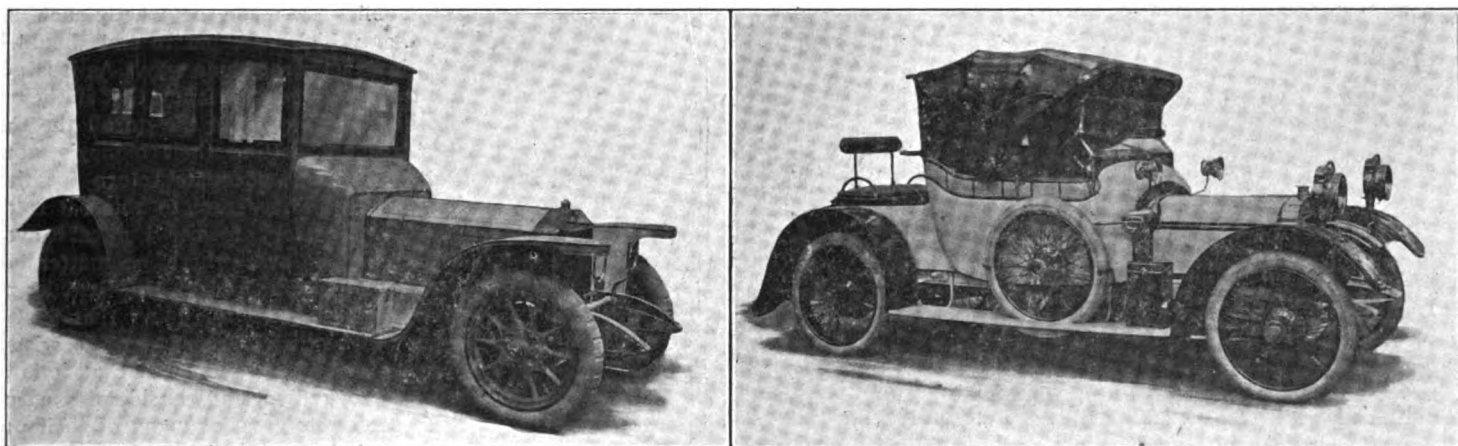
Another direction in which improvement had been looked for, that of the self-starter, proved disappointing to the show goer. But two makes of car, the Adams and S. C. A. T., at present are equipped with such arrangements, while only one system of the

in service, and the other is the return to popularity of the four speed change gear. Among the marks on which stationary lay shafts are provided are the Napier, Riley, Bell and the new Zedel, an imported car shown for the first time. Gear box position and general design remains fixed, for the most part, the selective arrangement and the mid-chassis position being the favorites. Exceptions are the Sheffield-Simplex, which has an axle-mounted change gear, and the Sizaire, which retains its original and peculiar axle gearset.

The Pilain and DeDion cardan axles still are employed by their respective makers, other exceptions to the rule of transmission standards being the Pilot, with its belt drive, the Phoenix, with its silent chains from engine to change gear and change gear to rear axle. The division between the cone and multiple disc clutches still

be gaining ground slowly in certain quarters, though for the most part the status of spring design is standardized and the leaf type is dominant. A noteworthy, and almost the only, exception to the rule is the Cowey car, which is built around the Cowey suspension. This is a pneumatic system which does away with all springs, and permits solid tires to be used.

Four cylinders are mounted on the four corners of the chassis, into which fit plungers, carried by the axles. Air pressure, at 100 to 120 pounds per square inch, is forced into the cylinders by a pump driven by the engine, the pressure being uniform for all the cylinders, and variable to suit road conditions. Suitable means for providing a hydraulic seal for the piston is included in the system, while maximum and minimum pressure valves take care of excessive loads and rebounds.



TWO STYLES OF WET-WEATHER BODY—ROLLS-ROYCE PULLMAN AND THORNYCROFT RUNABOUT

sort was to be found in the accessory section of the show.

As for transmissions, the development of the season may be termed the worm drive, although its adherents are not marshalled in very startling array. There were nearly a dozen of them, however, which, considering the reluctance of most manufacturers to take up the system in the past, speaks well for growing confidence in its value. A noteworthy point in this connection is the divergence in practice observable. One school of constructors places the worm above, and the other below the axle. In the former instance the advantage claimed is that of the straight line drive. Adherents to the latter style, however, point to the need of adequate lubrication and claim that it is necessary to drop the worm below the axle in order to have it work in a constant bath of oil. Among the cars now driven by this system are the Daimler, Argyll, Standard, Sunbeam, Wolesley-Siddeley, Dennis and Lancaster. Belsize cars are so equipped on order.

Two tendencies are noticeable in the matter of change gear design. One is the growing use of arrangements whereby the lay shaft is rendered inoperative when not

remains a fairly even one, taking the show 'round. One or two new ideas have been brought out, however, as in the Delayhay, in which a rubber cushion ring is introduced beneath the leather of an otherwise ordinary leather-faced cone clutch, and the Mass, which has a very ingenious form of pressed steel cone clutch, in which little tabs of the metal are pressed outward to secure gradual engagement. The Metallurgique expanding clutch and spring drive is retained, as is the original form of expanding clutch developed for the Mors.

Another essentially British feature, the detachable wire wheel, also is slowly gaining favor. Ten makers staged cars at the show on which this form of equipment was used, including the Napier, Daimler, Delage, S. C. A. T., Standard, Singer, Austin and A. G. R. Front wheel braking, still another point in which the English engineers have taken the initiative, likewise shows some slight gain, the Adams, Thames, Crossley, Argyll and Arrol-Johnston all carrying front brakes on certain models, though it is a fact that one of the new Arrol-Johnston models is being made without them.

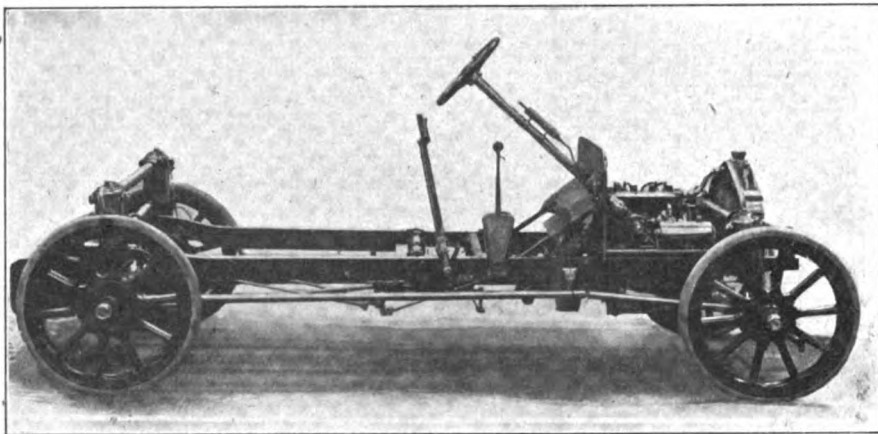
Three-quarter elliptical springs appear to

British body design always has been a thing to admire, if not to appreciate. As revealed at Olympia this year, however, it proved to have fewer irrational developments than commonly and to be working along lines of utility and even grace to a degree fully commensurate with the skill of the old-time builders. The increased use of the torpedo effect in bodies of all styles was particularly noticeable, the imposing "boat" body on the Rex touring car, and the closed-front effect obtained on the Metallurgique touring landaulet, being rather striking examples in point.

Two styles of runabout with closed-front, the small Arrol-Johnston and the massive-looking Thornycroft, afford a contrast which is illustrative of the wide range of development and also of the individuality sought by the different body makers. A more important line of development, however, is that of the closed car of the coupe or cabriolet pattern. Perhaps the most noteworthy example of this at Olympia was the huge six cylinder Rolls-Royce, with its Pullman body, fully enclosed and having but two doors, one on either side. In its severity of line, it is almost plain, yet its plainness lacks nothing of grace nor im-

pressiveness. Still another striking body was that of the 58 horsepower Daimler, which was of the coupe type, but following the general lines long ago laid down in the Sedan chair. Its particular claims to distinction are very wide doors and windows, an entire absence of overhang, and special equipment; the electric dash lamps and even the horn being embodied in the dash structure in permanent fashion.

In addition to the Daimler, Adams and Austin cars are now equipped with electric lights, the latter having a Bleriot dynamo lighting set, and the former the new C. A. V. system, in which a dynamo is employed which is automatically regulated as to voltage, by a most original and ingenious system of windings. The Adams also is equipped with an automatic horn-blowing appliance, worked from the tank that is used in connection with the self-starter.



THE COWEY CHASSIS WITH PNEUMATIC SUSPENSION

On the Albruna-Brown the horn is blown by the engine suction, the reed action being just the reverse of that ordinarily employed. This car, incidentally, is equipped with the Roper speed control, which is designed to regulate it to any fixed speed that may be desired, regardless of the inclination of the operator.

In the matter of control systems, several instances have developed in which makers have come back to the old American scheme of using tilting or otherwise adjustable steering columns. The Armstrong-Whitworth, Humber, Imperia, Lancaster, Mass and Overland afford examples of this. In most instances the engine controls are arranged much after the American standards—insofar as standards may be said to exist in this country—but in the Gregoire the throttle control is by pedal only, the ignition being handled from the top of the steering column. The Leon Bollee, S. C. A. and Le Gui cars have the same feature, the latter, in particular, having a "limit lever" mounted on the dash, which regulates automatically the speed to which the engine returns when the pedal is released. Engine braking is provided on some of the Panhard models, while in the case of the rather unusual N. E. C. cars, which are

among the few in Great Britain to be equipped with horizontally mounted engines, a "decelerator pedal" is employed, which not only slows the engine but applies the brakes. In the new Maudsley models, the long-time desired feature of a non-slippery pedal has been achieved by the simple expedient of applying the principle of the safety stair tread. That is to say, the interstices of the grid which is formed on the face of the toe-plates, are filled with lead.

Strictly speaking, the show developed little or nothing of the "world-beating" order. Even the accessory sections brought forth little that was really noteworthy, the one striking development being in the influx of electric lighting systems, with automatic voltage regulation, battery cut-outs and elaborate switchboard arrangements. The only exception to the rule, at least as

applied to the car section of the exhibition was the Phanomobile.

The Phanomobile, strangely reminiscent of the days of the so-called "Bicycle Trust" in the United States, is designed to run on three wheels, and has its little air-cooled motor mounted over the front wheel. Steering is done by means of a tiller, this and several of its other peculiarities recalling to mind a product that enjoyed a brief existence just at a time when many bicycle manufacturers were beginning to turn their attention to the construction of self-propelled vehicles.

#### Rating that Reduces Large Fees.

While it appeared from first reports that high-powered motor cars were at present somewhat unpopular on account of the extremely high license fees for cars with high horsepower, it now seems that both English and French manufacturers have found a way to "beat" these new license regulations. The horsepower of motor cars in the United Kingdom is calculated according to the formula of the Royal Automobile Club, which does not take into account the stroke of the piston, but merely the bore of the cylinder.

"The result of this assessment of duty

and license fees based on the bore of the cylinder alone," says Consul Augustus E. Ingraham, of Bradford, England, in a report to the Department of Commerce and Labor, "is that constructors have been induced to build motors with longer strokes, thereby increasing the horsepower. A striking illustration of this is shown in a new motor by a leading French firm, which has a bore of 100 millimeters and a stroke of 300 millimeters. Under the Royal Automobile Club's rating this would be liable to duty as 'not exceeding 6½ horsepower,' whereas it will develop 35 horsepower."

#### Using Cars Not Wisely but Too Well.

"In the readjustment of things relating to automobiles that now is in gradual process, there is one idea that probably will enter into the spirit of the dreams of the average owner," remarked an abstract man a few days since, "and that is the fact that automobiles are made for exactly such uses as other vehicles are put to and should be used in exactly the same way. As it is now most owners seem to fancy that if they do not keep their cars on the go all the time they are not getting their money's worth and not getting adequate return for their investment. They seem to think it is absolutely necessary to use the cars every day and to go everywhere, no matter how short the distance, when they would not even begin to think of doing that sort of thing with their horses and carriages after a while they will learn that it is almost as convenient and considerably cheaper to use street cars for many of their purposes and then we will hear less about the cost of upkeep and the people themselves will get more real pleasure out of their automobiles. To use even such good things as a matter of duty—for that's what it too often amounts to nowadays—rather takes the edge off one's appetite."

#### Show Rivalry Begins in Los Angeles.

Out in Los Angeles, Cal., where the Sel-den patent line has been drawn with great precision by the retail trade, the "licensed" dealers have made ready for their second annual show, which is to be held at Fiesta Park during the week commencing December 4th, and continuing to December 31st. As soon as their plans were made public, the large number of "independents" who were to have been "left out in the cold" promptly organized and decided to hold a show of their own, and "jumped" the "licensed" function by staging their show two weeks ahead of it. It will open at the Shrine auditorium on December 12th.

To further their venture the "independents" have incorporated under the name Los Angeles Motor Car Dealers' Association, with the following officers: President, George H. Whitcomb; vice-president, H. K. Butterfield; secretary and treasurer, W. J. Burt. The association has 30 members, and its show will be open to all comers.



**NEW YORK TRADE ENDURANCE RUN**

**Will Occupy Two Days and Traverse Three States—Restricted to Class A Cars—Thirty Entries Assured.**

Entry blanks have been issued for a two days' endurance run on November 29th and 30th under the auspices of the New York Automobile Trade Association, and though the notice is rather short, it is stated that assurances of more than 30 entries render its success secure. The run is to start and finish each day in New York City. Only stock cars, Class A, are eligible, but there will be three divisions, according to price, allowing competition under these price classifications. The winner in each division will receive a silver trophy. The entry fee for a single car is \$25; a second entry is \$15, a third \$10 and a fourth and subsequent entries \$5.

The first day the start will be made at 8 o'clock in the morning from Columbus Circle. The objective point is Danbury, Conn., and will be reached by way of New Rochelle, Stamford and Ridgefield. The return trip will take the motorists further inland, and will then lead them home over the Carmel, Lake Mohapac and Briarcliff route, the day's distance being 136 miles. Checking stations will be established at Briarcliff, Danbury and Stamford. It is probable, however that the route will be reversed. The second day's run will cover about 139 miles. The cars will be checked out on the New Jersey side of the 42d street ferry at 8 o'clock in the morning. From that point they will pass through Hackensack, Suffern and Tuxedo, to Newburg, N. Y., where the noon stop will be made. Returning, the route lies through Little Britain, Chester and Southfield, from which point the morning route will be retraced. The checking stations will be Tuxedo, Newburg, and Suffern. Entry blanks may be had from W. A. Poertner, the New York representative of the National Motor Car Co., 1933 Broadway, New York, or of C. H. Larson, of the Oldsmobile Co., 1653 Broadway. Entries will be received up to November 25th.

**Tour to "Open Up" Western Canada.**

If the plans which are brewing in Winnipeg come to a head there will be a fine large "reliability tour" in western Canada next season. It is a country of vast expanse and prairie roads of which little is known by the average American but which is, nevertheless, proving a splendid market for American automobiles. The tour is being fathered by the Modern Power Co., of Winnipeg, and according to its tentative plans will start about August 1 from Winnipeg, and after touring about 2,300 miles through the provinces of Manitoba, Saskatchewan and Alberta the tourists will

return to Winnipeg 12 days later. A. A. A. rules will govern the contest. In addition to passing through such comparatively large places as Carnduff, Calgary, Edmonton, Saskatoon, Regina, Brandon and Portage la Prairie, those participating will have an opportunity of visiting such interesting places as Moose Jaw, Drinkwater, Swift River and Medicine Hat. The roads covered will be "some of Canada's best," according to the announcement, and will consist mainly of smooth ungraded prairie trails with few hills.

**"Good Roads Tour" Off to 'Frisco.**

Another "good roads tour" left New York for San Francisco on Tuesday last, 22d inst. It was contained in an Ohio car, which will carry Christmas greetings from the mayor of New York to the mayor of San Francisco. It is also carrying E. L. Ferguson, G. W. Finney, Charles Thatcher, who is driving the car, and a mechanic. Instead of following the usual route, the party will travel via Philadelphia, Baltimore, Washington, through Virginia, the Carolinas to Florida, and thence north to Alabama, Tennessee and Kentucky, thence west and south again to Missouri, Kansas, Oklahoma and Texas to New Mexico, Arizona and California, a distance of about 5,000 miles. The "tourists" will stop only for food and sleep and their impressions of the roads will be published for the benefit of whom they may concern.

**Indianapolis to Regulate Municipal Cars.**

According to an ordinance recently introduced in the Indianapolis city council, automobiles in use for city business must be marked "City of Indianapolis." The measure also provides for the appointment of a city mechanic and a municipal garage and prohibits the use of city cars for other than city business. A fine of not more than \$100 is provided for violations.

**A. A. A. to Meet in Hotel Belmont.**

The annual meeting of the American Automobile Association will occur Nov. 30-Dec. 1. It will be held in Hotel Belmont, New York City. It is understood that L. R. Speare, of Boston, will not accept a re-nomination and that he will be succeeded as president by Robert P. Hooper, of Philadelphia, who now is first vice-president of the association.

**Mile High Hill Climb is Postponed.**

The "Mile High" hill climbing contest at Redlands, Cal., which has been one of the important occurrences of the Thanksgiving season for several years, will not take place today as originally planned. It has been postponed and may occur early in January.

The motorists of Hartington, Neb., have organized the Automobile Club of Hartington, with W. S. Preston, president, and J. Albert Olson, secretary.

**TALKED AT A TOURISTS' AGENCY**

**Several State Officials Assist the Advertising Campaign—"Conference" Leads to an Undesirable "Resolution."**

What the enterprising secretary of the so-called Touring Club of America declares, almost without stopping for breath or a comma, was "the largest and most representative conference of state officials ever held for the express purpose of considering measures whereby the automobile laws of the different states in the Union may be so framed as to permit residents from one state, after having complied with the regulations of their home locality, to tour in adjoining states without being subjected to additional legal requirements," occurred in the "club's" office in New York on Thursday last, 17th inst.

The conference was a clever "publicity stunt" engineered by the "club," which really is a private corporation operating a tourists' agency for revenue only, and apparently in ignorance of its real nature, representatives of the governments of at least six states and the District of Columbia innocently used their taxpayers' money unknowingly to further the corporation's advertising scheme and to partake of the luncheon which it could well afford to provide.

The conference of course could do nothing but talk and adopt "tentative resolutions," as they are called by the "club." There were two of these "resolutions." One of them apparently favors the enactment of laws giving non-residents exemption for unlimited periods of 15 days on a reciprocity basis, but the wording of the resolution, which rather seems to be the draft of a suggested section for inclusion in the statutes, is such that it is difficult to say how any court would construe it. It is as follows:

The provisions of the foregoing sections shall not apply to motor vehicles owned or operated by non-residents of this state while such vehicles are being operated within this state for a period not to exceed 15 days at any one time, provided the owners or operators thereof shall have complied with the provisions of the law of the state, territory or federal district of their residence in regard to motor vehicles, and shall comply with such law while operating or driving a motor vehicle upon the public road or highways of this state: provided, however, that the foregoing sections of this act are substantially in force as law in the state, territory or federal district of the residence of the owner of such motor vehicle, otherwise all provisions of this act shall apply.

Of the intent of the other "resolution," of which the "Touring Club" does not crow very lustily, there is no room for doubt. It proposes that no person, owner or otherwise, shall drive a car unless he has passed an examination; that no one under 18 years

## THE MOTOR WORLD

of age shall operate a car without special permission from the state, and that all licenses or permits "shall be subject to revocation for any violation of this act or on any other reasonable ground."

Those who attended the "Touring Club's" conference were as follows: Assemblyman A. S. Callan and Secretary of State-elect Edward Lazensky, of New York; Robert B. Caverly and Harrington Mills, representing the commissioners of the District of Columbia; from New Hampshire, Secretary of State Edward W. Pearson; from New Jersey, J. B. R. Smith, commissioner of motor vehicles; from Maryland, John E. George, commissioner of motor vehicles; from Pennsylvania, Joseph W. Hunter, state highway commissioner; from Ohio, Frederick H. Caley, registrar of automobiles of Ohio; from West Virginia, Charles P. Light, state highway commissioner, and C. N. Briscoe, president of the West Virginia State Automobile Association. Alfred Reeves, general manager of the Association of Licensed Automobile Manufacturers, who goes wherever there is likely to be "something doing," also looked on and was the only real representative of the automobile interests who attended.

#### Dunn Wins Three Hours' Race in Texas.

The three hours' race, scheduled for the last day of the San Antonio (Tex.) Automobile Club's racemeet, was held on Sunday, 13th inst., but only after a meeting of the directors of the club had been called to consider whether or not the meet should be continued after the death of Tobin DeHymel; it finally was decided that as legal proceedings might be taken by the Fair Association and the drivers, and as the American Automobile Association might blacklist the local club, to complete the original program.

Just before the start of the three hours' race, while the six entrants were lined up, the band played "Nearer My God to Thee." It was a requiem for DeHymel, who was killed in a race there on the day previous. Between three and four thousand spectators stood, the men with bared heads. The starters were William Dunn, Marion; Ben Johnson, Hudson; Mortimer Roberts, Abbott-Detroit; Fred Meleun, Marquette-Buick; George Clark, Cutting, and H. E. Slagle, Buick. The latter two went out during the race, Cutting on account of timer trouble and Slagle because of some derangement which made his car uncontrollable and threw him out, the wheels passing over his body; his left thigh was fractured. Dunn, driving the Marion, finished first, beating out Johnson in the Hudson. Meleun, driving the Marquette-Buick, was in the lead when tire trouble caused him to stop, and he finished fourth. Dunn covered during the three hours of running time, 155.25 miles, or an average of 51.75 miles an hour. Roberts in the Abbott-Detroit was third.

### AUTOMOBILE HAULS LOCOMOTIVE

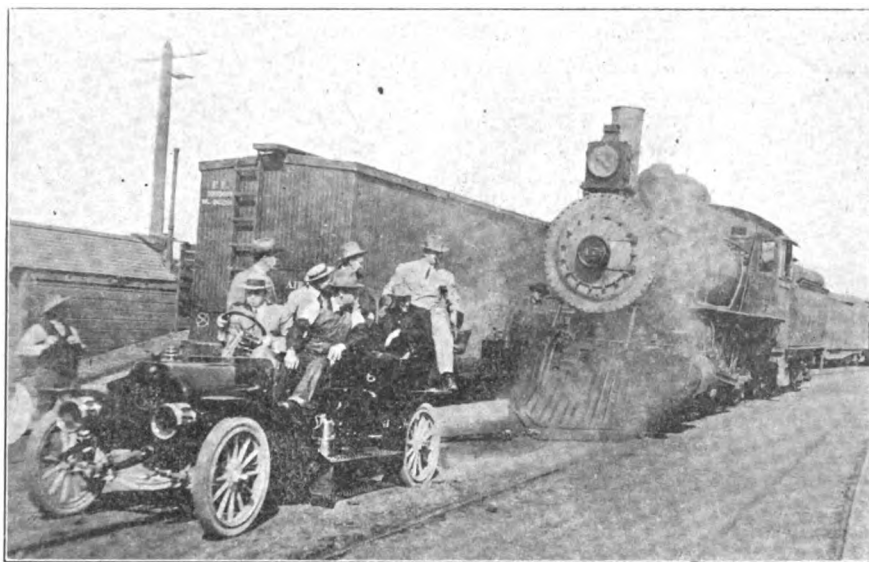
**Proves Equal to Task of Moving 110 Tons on the Rails—The Test Recently Made in Los Angeles.**

To the many feats of prowess performed by automobiles Harry A. Lord, president of the Lord Automobile Co., of Los Angeles, Cal., has added another remarkable demonstration of the power of a gasoline engine by hauling a 110-ton railroad locomotive along the tracks of a railway in Los Angeles, his E-M-F "30" touring car being employed for the purpose. The feat, which was witnessed by a number of rail-

man, C. B. Moon, C. Adams, A. D. Lord and H. H. Stone.

#### Lamps Law that Fails of its Purpose.

That it takes an astute "legal" mind to pick flaws in a seemingly perfectly worded ordinance, was proven again last week in Hutchinson, Kan. As might be expected, the recent automobile regulations of the city have been subjected to close scrutiny and it was discovered that the ordinance relating to the carrying of lighted lamps on all automobiles was completely and entirely null and void. The discovery was made when Daniel Barkman, who was pitched out of his buggy by an automobile driven by Thomas Keddy, of Plevna, Kan., endeavored to have Keddy arrested for



LORD'S E-M-F "30" HAULING LOS ANGELES LOCOMOTIVE

road men and automobile owners, was accomplished from a dead standstill, the automobile being coupled to the locomotive by means of a heavy rope attached to the rear axle of the E-M-F and the cowcatcher of the locomotive, as shown by the accompanying illustration.

Obtaining traction was difficult at first on account of the soft condition of the ground over which the test was made, but this was overcome by a number of heavy men getting into the tonneau of the E-M-F and weighting it down. For a few moments the locomotive seemed glued to the tracks, and some of those present offered to bet that the automobile would be unequal to the task; they expected to see the rear construction of the E-M-F yanked out, but they were disappointed, as slowly but surely the big wheels of the locomotive commenced to revolve and a moment later it was being dragged down the track.

Engineer Love, who has charge of the locomotive, No. 479, on the regular passenger service run of the Salt Lake road, sat in the automobile with Mr. Lord, who drove the automobile. The others in the car were J. W. Flickwen, round-house fore-

driving along the roads without lights. To his dismay he found that a warrant could not be issued, for the statute reads:

"Every automobile or similar motor vehicle shall be so constructed as to exhibit during the period from one hour after sunset to one hour before sunrise one or more lamps showing white lights visible within a reasonable distance."

While the law doubtless was written for the purpose of compelling automobilists to light these lamps after dark still it does not read so, as only the "construction" of the car is mentioned.

#### When an Owner is Not Responsible.

That an owner is not always responsible for damage done by his employes again was established last week when the New York Supreme Court dismissed a \$15,000 damage suit brought against ex-Senator W. A. Clark, whose automobile ran over and injured a 12-year-old boy. Mr. Clark testified that his chauffeur had been "joy-riding" without his permission, and therefore he claimed exemption from liability. The court in the person of Judge Davis upheld this view.

**DEPARTURES IN THE LOCOMOBILE**

**Shaft Drive and Jump Spark Finally Adopted—New "Six," Full of Good Features, Added to Line.**

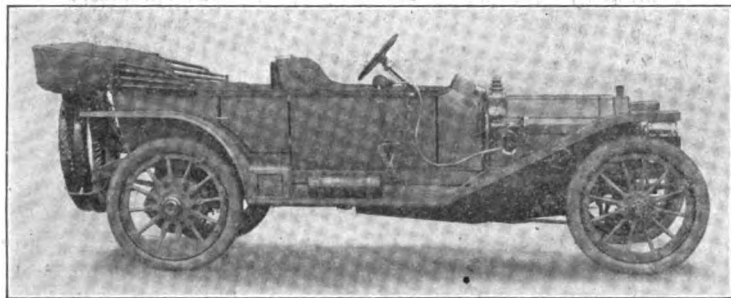
Not only because it formally heralds the adoption of a six cylinder model is the annual announcement of the Locomobile Co. of America made more notable than usual. That model has been exploited for several months and already is fairly well known,

ononymous with cars in the higher class. A conspicuous feature of the new Locomobile is its compactness, its bonnet being but three inches longer than that of the four cylinder car. This result is obtained by giving the crank shaft seven main bearings, a construction which markedly economizes shaft length.

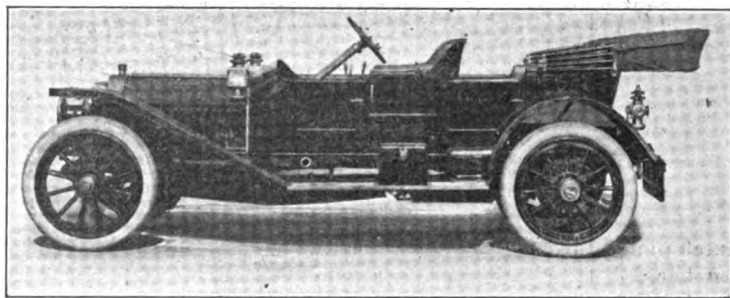
The different bodies supplied on the model "L," 30 horsepower chassis are touring, torpedo, small tonneau, limousine and landaulet. By undoing two bolts the left front doors, on the touring and closed bod-

are located on opposite sides of the motor. Extremely quiet valve action is secured without the use of fiber buttons embedded in the tops of the valve lifters; this result is obtained by a very little play and accurate work which allows clearance to be reduced to a few thousandths of an inch between the lifters and valves.

A new single jet carburetter of unusual construction solves satisfactorily the problem of six cylinder motor carburation. The tendency of the ordinary automobile air valve spraying carburetter is to strangle



LOCOMOBILE, 4 CYLINDER, WITH TORPEDO BODY, \$3700



LOCOMOBILE 4 CYLINDER TOURING CAR, \$3500

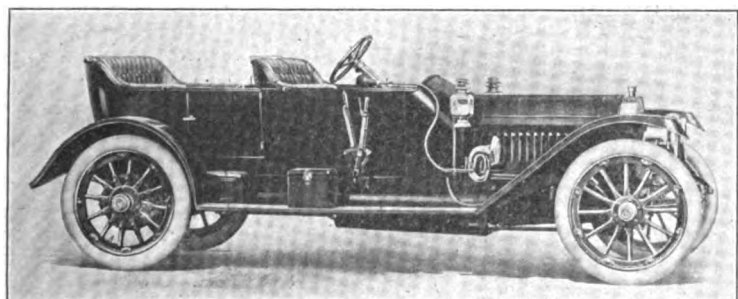
and that it is a production in every way worthy of the Bridgeport (Conn.) concern there is abundant evidence. More significant, however, is the adoption of shaft drive and jump spark ignition for the entire line of 1911 Locomobiles, the experienced and conservative company having during many years held fast to chain drive and low tension ignition with make-and-break igniters. Nor do these changes represent the sum total of all that the improving hand has been able to accomplish. The new line is marked by a number of lesser

ies, are removable, making it more convenient for summer use.

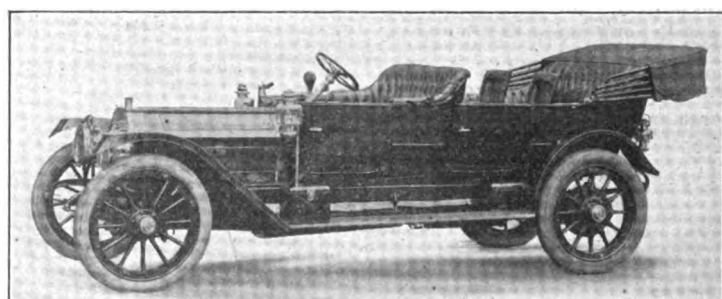
The new six cylinder motor is a direct extension of the four cylinder power plant, by the addition of two cylinders. They are cast in pairs and are "square," bore and stroke each being  $4\frac{1}{2}$  inches. The upper half of the crank case is bronze, and the aluminum lower half is carried down, forming a two-gallon oil reservoir. A false bottom of sheet steel, 1-16 inch thick, is located just low enough to clear the cranks and connecting rods, and it contains troughs

the air supply, while this model increases the supply of gasoline. The auxiliary valve has a light spring for low speeds, and a stiffer and shorter spring which does not take hold until the valve has begun to open. The valve is held shut to facilitate in starting, by increasing the tension of its springs by means of a lever on the dash. The spray passage is water jacketed, and in addition, the air is heated by being drawn from a passage around the exhaust manifold.

Ignition, as already stated, is the jump



LOCOMOBILE, 6 CYLINDER, TORPEDO BODY, \$4800



LOCOMOBILE 6 CYLINDER TOURING CAR, \$4800

but far reaching refinements that add value to cars that always have enjoyed prestige because of their value.

The new six cylinder model, rated at 48 horsepower, replaces the four cylinder car of 40 horsepower, the four cylinder 30 horsepower, however, being continued with certain revisions. These two constitute the chassis upon which the Locomobile line is founded.

Model "M," the six cylinder car, is supplied in touring, torpedo, limousine and landaulet styles, either with or without front doors. The open bodies are long and low in appearance, and have those refinements in body design and detail which are syn-

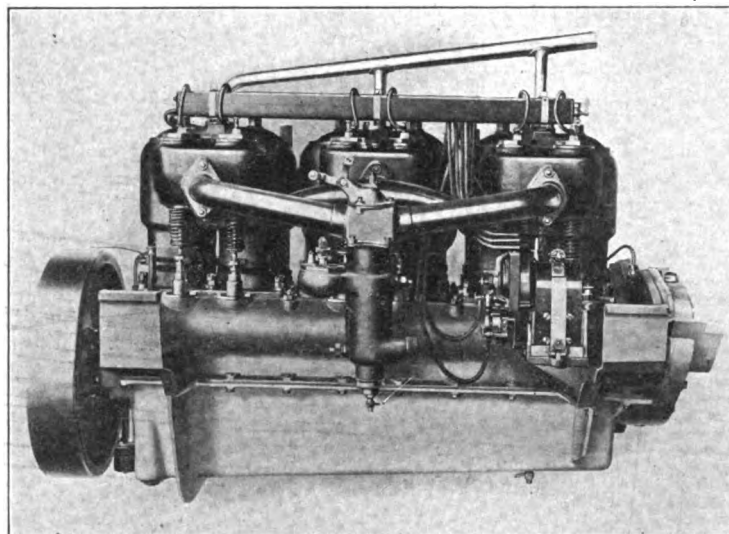
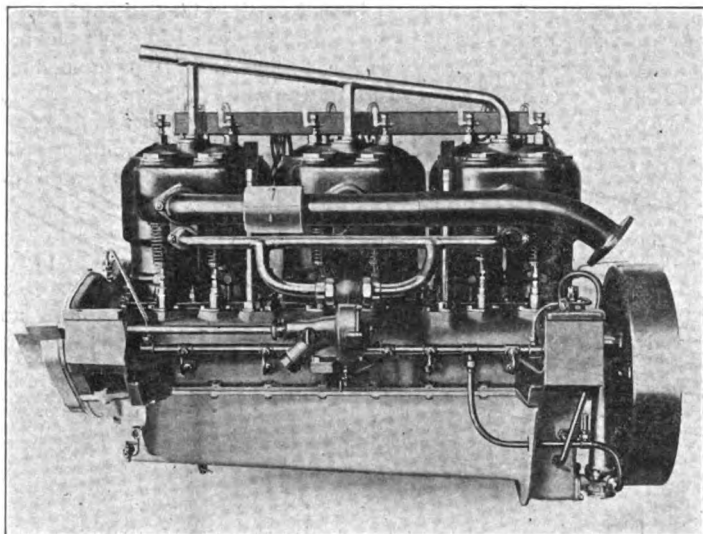
into which dip scoops forged integral with the bottom caps of the connecting rods; the scoops pick up oil which lubricates the crankpins. The surplus oil overflows from the edges of the troughs into the reservoir below. The oil is driven by a gear pump through a screen, thence under pressure through a system of outside pipes and drilled passages to the main bearings. A pressure gauge on the dash indicates the flow of oil from the pump. A large screw plug allows drainage of the reservoir and a pair of try-cocks, aided by a cork float tell-tale show the amount of oil on hand. The pistons are lubricated by splash.

The valves are mechanically operated and

spark method, which replaces the low tension make and break system so long adhered to by the Locomobile makers. The Bosch magneto is used in connection with the Bosch coil and switch for starting on the battery. Only one set of plugs is employed.

Cooling is effected by a square tube honey-comb radiator and an adjustable belt-driven fan. The water is circulated by a bronze centrifugal pump having a positive gear drive.

The type of clutch employed is a multiple disc containing 43 steel discs. The forward universal joint is contained inside the clutch, and the rear universal drives the

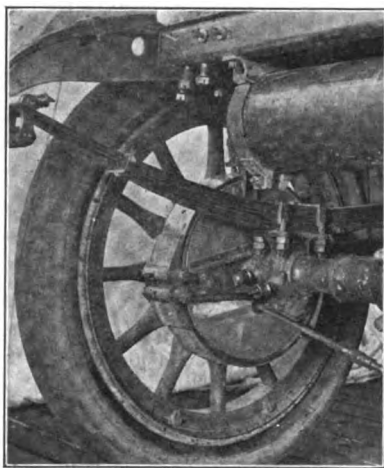


EXHAUST AND INLET SIDES OF LOCOMOBILE 6 CYLINDER, 48 HORSEPOWER, MOTOR

clutch pinion through a taper fit and Woodruff key. A large ball bearing around the clutch shaft acts as a thrust bearing to withdraw the clutch. When in action, however, the clutch is self-contained. It can be removed bodily without disturbing either the engine or the gear box by taking out six bolts holding the clutch housing to the flywheel web and at the same time undoing four bolts holding the sleeve surrounding the rear universal joint of the clutch shaft. A slotted jaw universal is used, and, when the sleeve around it is removed, the clutch shaft is simply slipped out laterally between the jaws.

The transmission does not differ from previous practice, the four speed selective type being used. The gear shafts run on Hess-Bright and F. & S. annular ball bearings, as do all other parts of the transmission and running gear, except the front wheels. The propeller shaft has one universal and one slip joint. The rear axle is of the full floating type, and the inner ends

of the axle shafts are squared where they enter the differential gears, having the



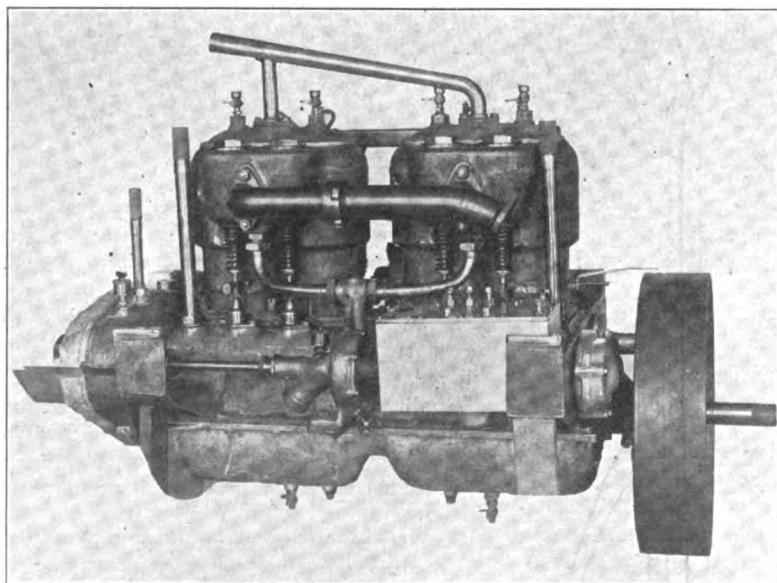
LOCOMOBILE REAR CONSTRUCTION

outer end upset to form a jaw clutch engaging the hub of the rear wheel. The axle

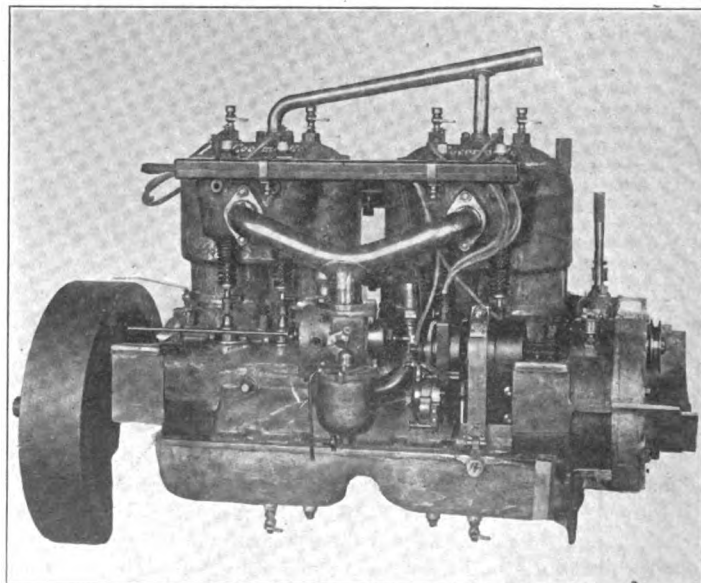
tubes are forced by hydraulic pressure into the axle casings and are riveted for additional security, thus dispensing with brazing. The axle is stiffened also by a truss rod placed underneath. The bevel pinion shaft is assembled as a unit with its bearings before it is placed in the axle. These units are so arranged that their positions can be adjusted from the outside after the axle housing is assembled, ensuring correct alignment and therefore absence of noise when running.

The ends of the axle tubes are tapered, and the radius rod forgings and spring seats are bushed where they go over the axle. The radius rods contain swivels at their front ends, to avoid straining on rough roads.

The brakes are internal expanding and external contracting for emergency and service respectively. The external bands are wider, but both are lined with reinforced asbestos, and either set is powerful enough to lock the wheels. The foot



LOCOMOBILE 4 CYLINDER MOTOR, EXHAUST SIDE



LOCOMOBILE 4 CYLINDER MOTOR, INLET SIDE



brakes are adjusted by outside wing nuts, and the emergency brakes by means of threaded tension rods which operate them, in place of cables.

The front axle is an I-beam section drop forged with spring seats integral. The springs in the front are semi-elliptic and those in the rear are three-quarter elliptic.

The four cylinder model differs from the six cylinder in that the engine is lubri-

simple and consists of adding a little light oil to that already in the transmission case or removing it all and substituting a lighter grease or oil.

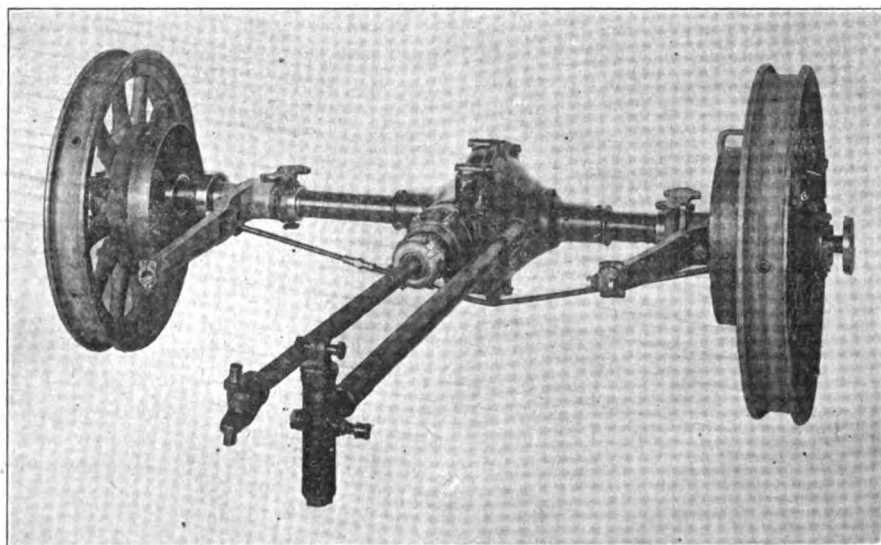
#### When the Car "Picks Up" Slowly.

When the throttle is suddenly opened about half way, the motor should "pick up" without hesitation or "strangling." If it fail to do so, the trouble may be that the

gines in the hands of other than professional drivers would bring to light spark gaps of from 1-32 to 1-16 inch in spite of the fact that the usual instructions which accompany European magnetos specify about .02 and domestic manufacturers advocate 1-64 inch as the proper interval for the best results. It is safe to assume that a magneto will give the most satisfactory service with a gap of this size, unless special instructions are given by the maker.

#### What Causes Automobiles to Smoke.

The smoking of automobiles usually is attributable to three causes—over lubrication, over-rich mixture, or oil or grease coming in contact with the hot exhaust pipe or muffler. In the first instance the remedy is obvious. When an over-rich mixture is the fault, it will cause heavy, black smoke (easily distinguished from the bluish grey smoke caused by burning oil) which will quickly soot up the spark plugs and foul the muffler. Smoke which is caused by oil or grease getting on the hot exhaust pipe is most likely to be detected after the car has come to rest and the motor has stopped. It may be found that one of the universal joint boots has become loosened, thus allowing the grease to be thrown out or oil may have leaked out of the rear bearing of the transmission and working along the shaft been thrown onto the pipe. The exhaust pipe or muffler seldom will become hot enough literally to burn the oil, but will slowly fry it, causing a slight smoke and a disagreeable odor. To obviate this, the leak must be



REAR AXLE SHOWING TORSION BAR AND DISTANCE RODS

cated by a mechanical oiler attached to the crank case and driven from an extension of the exhaust cam shaft; the oiler driving gears operate in a grease tight case; the clutch of Model "L" is a leather faced cone with springs under the leather to permit easy engagement. Both of the models have the four speed transmission, and the main details of the rear axles, transmission and control are similar.

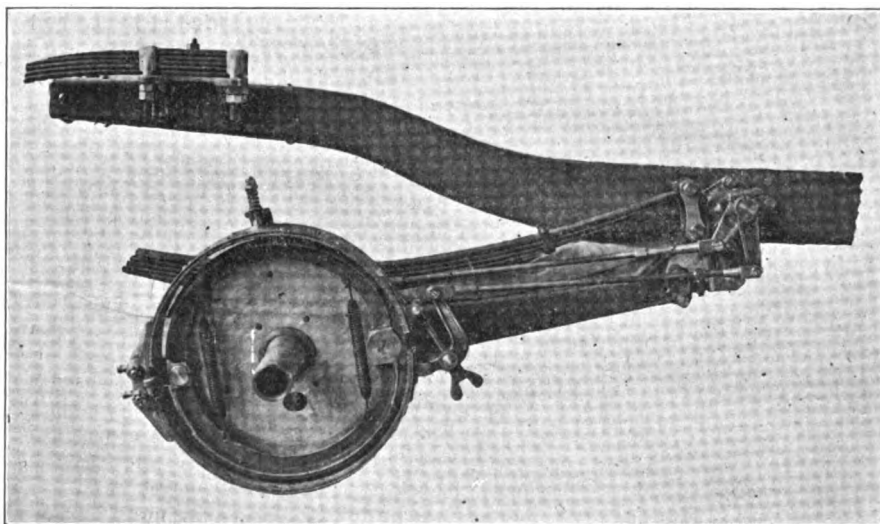
The wheel base of Model "M" is 135 inches, with 36 x 4 inch front tires and 37 x 5 inch rear tires. The roadsters, however, have 36 x 4½ inch rear tires. Model "L" has a 120-inch wheel base and 34 x 4½ inch tires front and rear.

Both of the cars are driven from the right side. The gear is of the standard worm and sector type; the column is rigidly braced, and supports a bronze steering wheel with hard rubber grip. The clutch and service brakes are operated by separate pedals, between which is an accelerator pedal, independent of the throttle lever on the wheel. At the right and outside of the front doors or panels are the hand levers for controlling the emergency brakes and for gear shifting.

#### How Cold Weather Increases Gear Noises.

If the transmission appears unusually noisy on cold days the trouble probably will be found to be due to a hardening or thickening of the lubricant. If the latter becomes sufficiently hard the gears will merely cut a channel through it and will not be properly lubricated. The remedy is

tension on the auxiliary air-valve is not quite strong enough, or that the points of the spark plugs are too far apart. If a quarter or half turn of the screw which tightens the air-valve spring fails to ob-



CHASSIS SECTION SHOWING BRAKE CONSTRUCTION AND MOUNTING

viate the difficulty, this adjustment should be returned to its original position and the spark plugs removed and examined. Like as not it will be found that the points of the plugs have been burned away, thereby increasing the distance the spark must jump, and making it weaker than it should be. A great diversity of opinion obtains with regard to the proper size of gap to use. The examination of a number of en-

stopped or something, preferably a piece of sheet-iron or tin, fitted in such a way that it will catch and deflect the oil or grease. Where light oil is used for lubrication, it may be found that after the motor has run at high speed for any length of time, some of the oil has worked past the pistons and valves and lodged in the muffler where it slowly burns. The use of heavier oil will prevent this trouble.

## EDUCATING USERS OF ELECTRICS

Service which May be Rendered by Central Station Men—Campaign that Helps all Concerned.

It would seem rather extraordinary were the Standard Oil Co., to start a campaign of publicity and education in an effort to increase the use of automobiles; it would be even stranger were it to undertake to supervise the operation of gasoline cars and teach their owners how to care for them in an economical manner. Yet just such a campaign has been undertaken by the central station men throughout the country on behalf of the electric vehicle. Viewed from another angle, the movement is not only perfectly logical, but promises exceedingly beneficial results to the entire industry; to the electrical portion of it directly, and to the section that is committed to the gasoline motor by the indirection of increased competition and popular information. How the project is forming and the directions in which it is likely to manifest itself were explained before the first annual convention of the Electric Vehicle Association of America, recently held in New York, by Louis A. Ferguson, of Chicago. As this authority explained:

"There is a certain relation which the electricity supply company bears to the electric automobile business which many central station managers appear slow to realize. In a way this relationship is analogous to that of the consulting engineer and his client. . . . The central station company is one of the three principally interested partners in the business of extending the use of electric vehicles, the vehicle manufacturer and the user being co-partners. What affects some affects the others. Each should be alike interested in putting only the most serviceable and economical vehicles before the public, and each like desirous of having the owners well pleased with their purchase and use. To accomplish this there must be substantial evidence of good faith on the part of each.

"The builder must be progressive and honest in his endeavor to make his vehicles the most serviceable that can be produced. The user should show a degree of tolerance and sincerity, and willingness to accept advice that will insure against possible failure due to lack of co-operation. The central station management, should not only supply charging energy at a reasonable rate, but should also assume that it is to a large degree responsible for the efficient operation of the vehicles. It should be sure the user is not wasting energy by overcharging his batteries. It should be kept in touch with its customers, and be able to give free advice as to the proper time for cleaning and repairing batteries in order

that there may be no chance for battery plates to be damaged through lack of attention or through ignorance on the part of the owner in the use of the vehicles.

"The fact must not be lost sight of that practically every new electric vehicle customer is unfamiliar with common battery charging practice and should be carefully instructed as to methods which are giving the best results. As a rule, the vehicle manufacturer furnishes him with printed instructions, but too often these are not followed. The inevitable result is that charging is done in a haphazard manner. Either too little or too much energy is put into the battery. If too little the user will soon find that the mileage on a single charge is not what it should be and the charging period is extended. A false impression is created in the mind of the user that by giving the battery a good charge greatly increased mileage may be obtained. Consequently good charges are the rule. The owner is pleased with the service which he is obtaining with his vehicle and all goes well until he receives his bill for charging energy.

"Right here is where the central station man is valuable. It is left to him to explain why his bill is so excessive. He must tell the owner that charging energy is being wasted; that the battery would give as much mileage if charged less, and that the battery plates would last longer. Not only must he tell the vehicle owner these facts, but he must prove that what he says is true. . . . It is not to be understood that overcharging is the cause of all battery troubles, but it is usually the cause of excessive electricity bills, and it is through that medium that the central station man is drawn into the case. . . .

"What is true of the private vehicle owner is to some extent true of the public garage manager. The owner of the vehicle complains that it does not run as far as it should on a charge, and insists that the battery is not being fully charged. Sometimes this is true, but more often the battery needs cleaning and a greater part of what would be a full charge is wasted through internal discharge due to short circuits. The garage manager issues instructions that the battery shall be overcharged every time it is charged. This only makes matters worse in that it hastens battery plate deteriorations, and increases the amount of electricity used, but it satisfies the owner's demands for mileage. It is deplorable that there are garage managers who do not understand how to properly charge batteries and it would seem that they would quickly familiarize themselves with standard practice, but the mere fact that there is a wide variation in the amount of energy used per mile by the same style of vehicle housed in different garages proves that there is a great deal of missionary work yet to be done, before all vehicle batteries will be charged properly

"We have made an investigation of the actual cost of operation of six modern design 3,000-pound capacity electric delivery wagons, over an average period of one year; the oldest wagon having been in service since January, 1909, and all since October, 1909. These figures are taken from the Commonwealth Edison Company's Statistician's Report and show actual costs of operation, including electrical energy at 4 cents per kilowatt hour, supplies, tires, battery and all other repairs, but exclusive of fixed charges (such as interest, rent, taxes, washing and driver) and antiquation of 6 cents per mile when averaging 30 miles per day.

"As to service performance of vehicle, it is unusual for the one and one-half ton capacity wagons above referred to to use more than 3 ampere hours per mile, while running under average conditions, the average being between 2.5 and 3 amperes. Under these conditions an 11 B. V. Exide battery rated at 140 ampere hours will drive a wagon from 45 to 60 miles on one battery charge.

"Recently during a period extending over two weeks, one of the wagons equipped with 64 cells of type A 6 Edison battery was run two days on a single battery charge. All together six complete discharges were made. The average mileage per discharge was 94 and the average discharge was 263 ampere hours. These figures demonstrate that the electrical commercial truck of to-day is capable of meeting practically all requirements of the average user, and in addition, furnishes him with more economical, cleaner and all-around better service than can be obtained from either of its competitors, the horse-drawn vehicle or the gasoline power wagons."

As showing the profitable nature of the electric vehicle business as compared with other classes of service, Mr. Ferguson adduced some interesting, not to say startling, figures.

"When it is remembered the income from the sale of energy for charging one electric pleasure vehicle battery is on an average from 3 to 5 times that from the sale of energy for lighting the average 20-light house or apartment, and further that it is used mainly during the off peak period of the system, the wise thinking manager will realize that it is not only desirable business to have, but he will also wonder whether he is doing all he can to encourage and popularize electric vehicles.

"A study of the Commonwealth Edison Company's statistical records illustrates this point in a very interesting manner. The average monthly income of various classes of business is as follows:

Flats .....	\$1.84
Houses .....	3.08
Small stores.....	4.32
Electric pleasure vehicles.....	6.87
3,000 lb. electric trucks.....	12.00
5-ton truck—electric....	20.00
Freight elevators.....	20.00
Passenger elevators.....	40.00

**WARREN-DETROIT ADDS TO LINE**

**Closed Front Models and a Delivery Wagon  
Now Included—Mechanism Changed  
Only in Minor Details.**

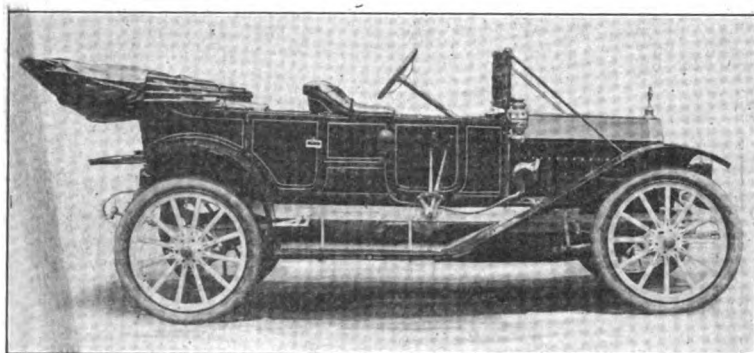
Among the manufacturers who are limiting themselves to one chassis, upon which they superimpose different types of bodies, is the Warren Motor Car Co., Detroit, Mich., which recently installed itself in a

give very uniform circulation. The ports are all water jacketed and built so that they offer the least resistance to the flow of gas. The crank shaft is made from high carbon steel drop forged, and aluminum is used in the crank case construction.

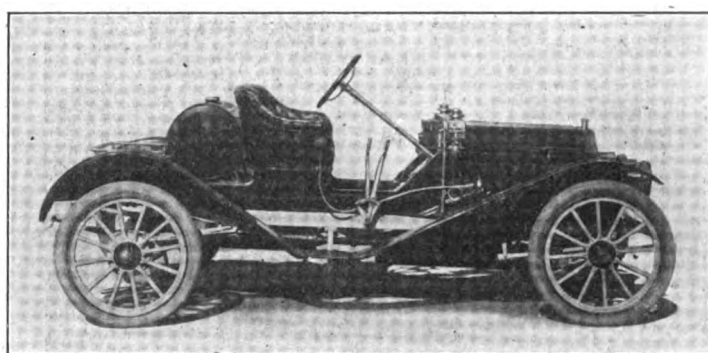
A reservoir under the crank case contains the lubricating oil, and this oil is pumped through the sight feed on the dash, into the crank chamber, which is provided with partitions between every two cylinders to keep a constant level for connecting rod

The rear axle is of the semi-floating type with propeller shaft squared where it takes a Spicer universal joint at the rear of the transmission. The front axle is an I-beam section, drop forged with integral spring seats. The spindles are bushed with hardened steel to take the pivot pins. The axle is rear steer with ball lever over the axle.

Internal expanding and external contracting brakes are set in the hubs, the face being two inches wide and ten inches in



A NEAT DEVELOPMENT OF THE \$1200 CLOSED-FRONT PATTERN



THE LIGHT TWO PASSENGER \$1200 RUNABOUT

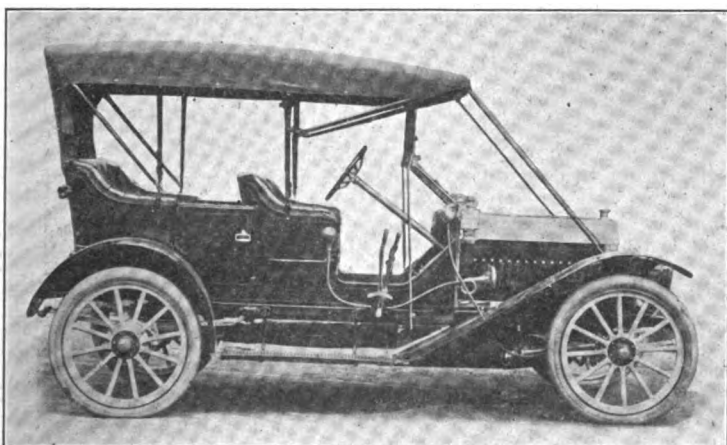
new factory in that city. For 1911, however, the Warren-Detroit line has been increased by the addition of several models including a four-passenger torpedo model, 11F, and a four passenger closed-front type of body, Model 11G, each of which sells for \$1500. The demi-tonneau model 11B sells for \$1300—an increase of \$50—while the five passenger touring car, model 11 C, lists at \$1,325, and the inside driven

splash feed. Two separate systems of ignition are used, employing two sets of spark plugs. One system is by Bosch magneto, and the other by four-unit vibrating coil and commutator. Cooling is effected by means of a centrifugal pump, a vertical tube radiator and 16-inch adjustable belt driven fan of six blades. The cone type of clutch is leather faced, with adjustable springs under the leather to allow for easy

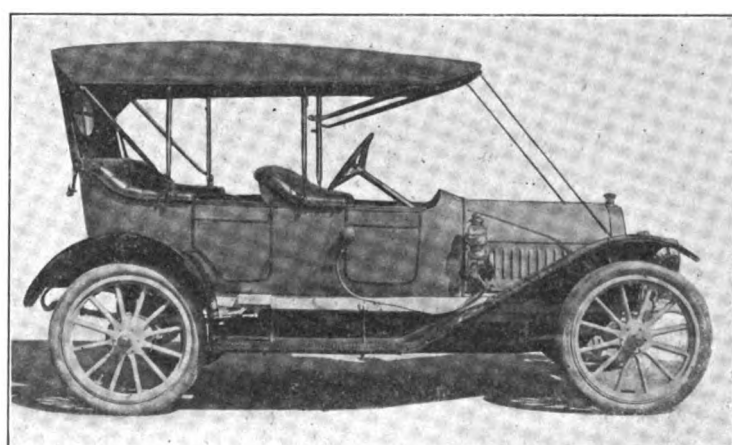
diameter. On all models the springs in the rear are three-quarters elliptic and in front semi-elliptic, both being provided with rubber bumpers.

On the torpedo, closed-front and coupe models the tires are 35 x 4 inches, while on the roadsters, small tonneau and touring car they are 34 x 3½ inches. The wheel base of all models is 110 inches.

The drive and control is on the right side.



THE NEW \$1300 WARREN-DETROIT 30 SMALL TONNEAU



TORPEDO DESIGN APPLIED TO THE \$1500 WARREN-DETROIT

coupe, \$1,750. The roadsters, Models 11 D and 11 A, are listed at \$1,200; last year they were priced \$1,100 and \$1,150 respectively.

In respect to mechanical changes, only minor refinements were found possible. All of the Warren-Detroit cars are equipped with a 30 horsepower Renault type motor of four cylinders, 4 x 4½ inches. The valves all are located on the right side and the spark plugs are placed over the inlets. The cylinders are cast according to the European idea of block construction, and the water jacket is so constructed as to

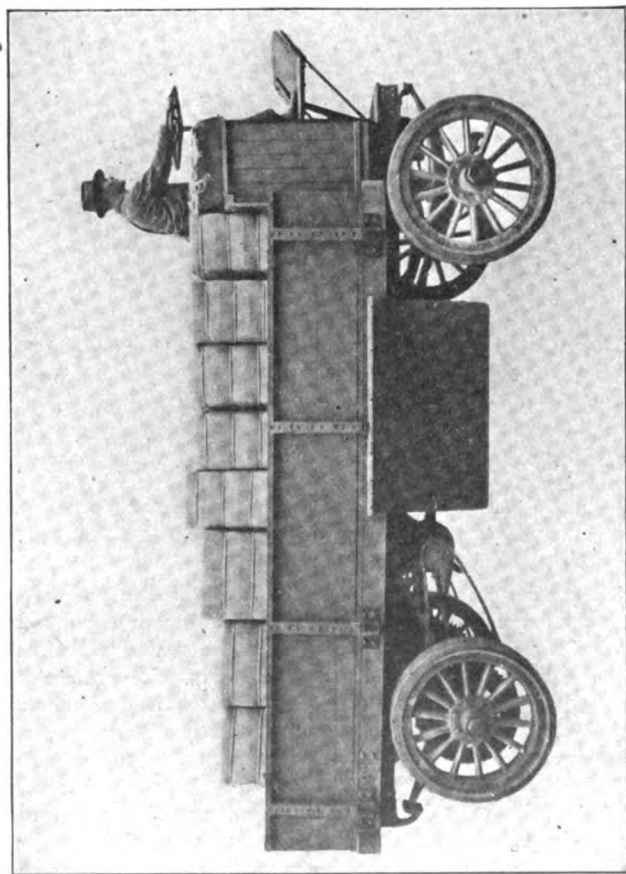
slipping in. It is controlled by a horizontal shaft with levers working on a shifting collar, which works on steel flanges of the clutch yoke. The foot lever is adjustable to position.

The frame is narrower at the front than at the rear, where it is raised over the rear axle. The motor is mounted, together with the transmission, upon a sub-frame. A three-speed selective sliding gear transmission is used on all models, the gears being contained in an easily accessible aluminum box.

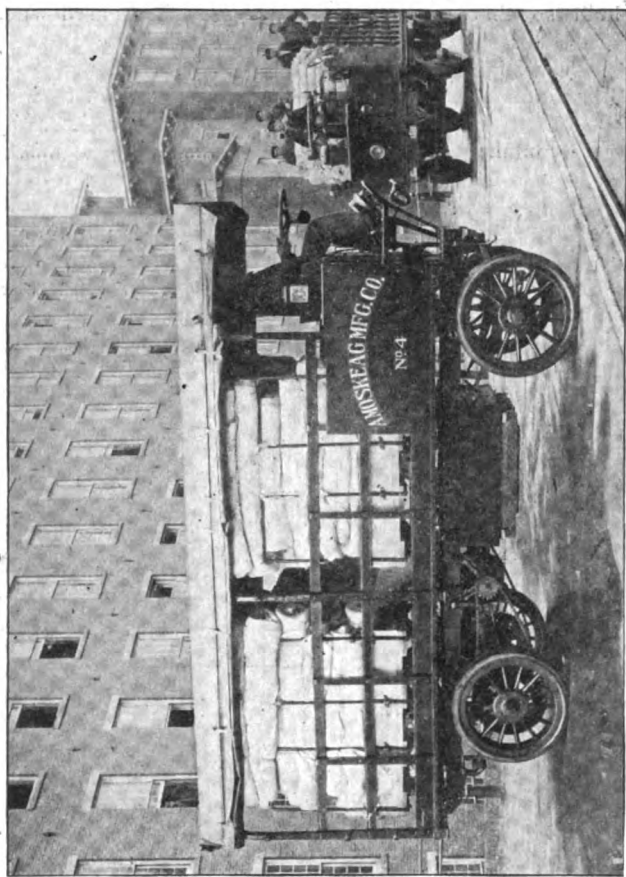
A seamless steel tube with a polished brass tube cover supports an 18-inch cherry wheel. The gear is of the worm and nut type. Spark and throttle levers are mounted upon the wheel, while the clutch and Nabe pedals operate through the toe boards. The spark advance is used only with the batteries, the magnets having a fixed spark. The gear shift and emergency brake levers are at the side.

In addition to the pleasure cars there is a Warren-Detroit 1,000 pounds light delivery wagon listing at \$1,300.

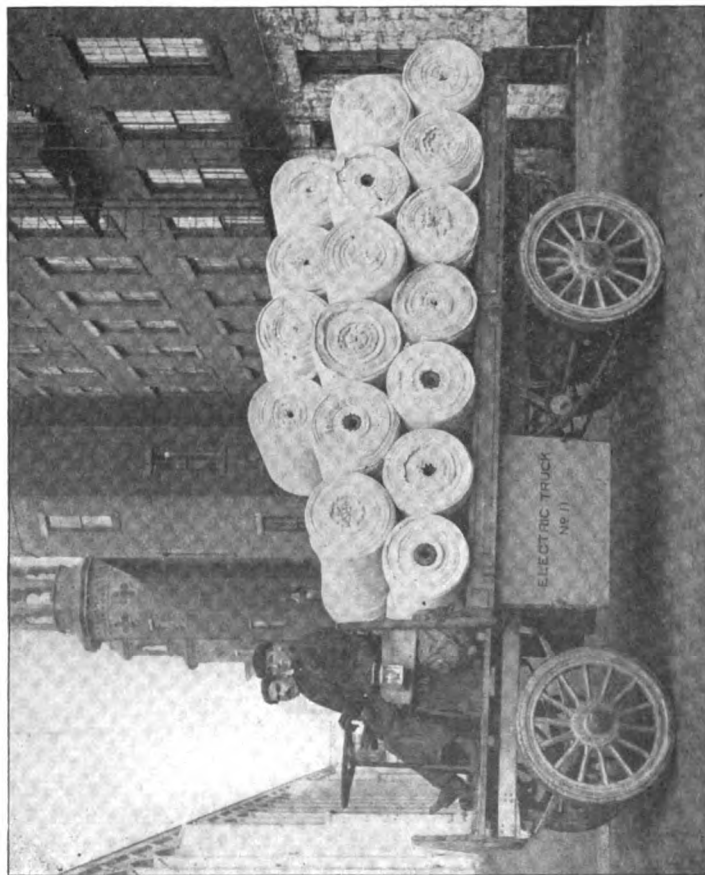
## FOUR GENERAL VEHICLE ELECTRIC TRUCKS IN SERVICE IN NEW ENGLAND



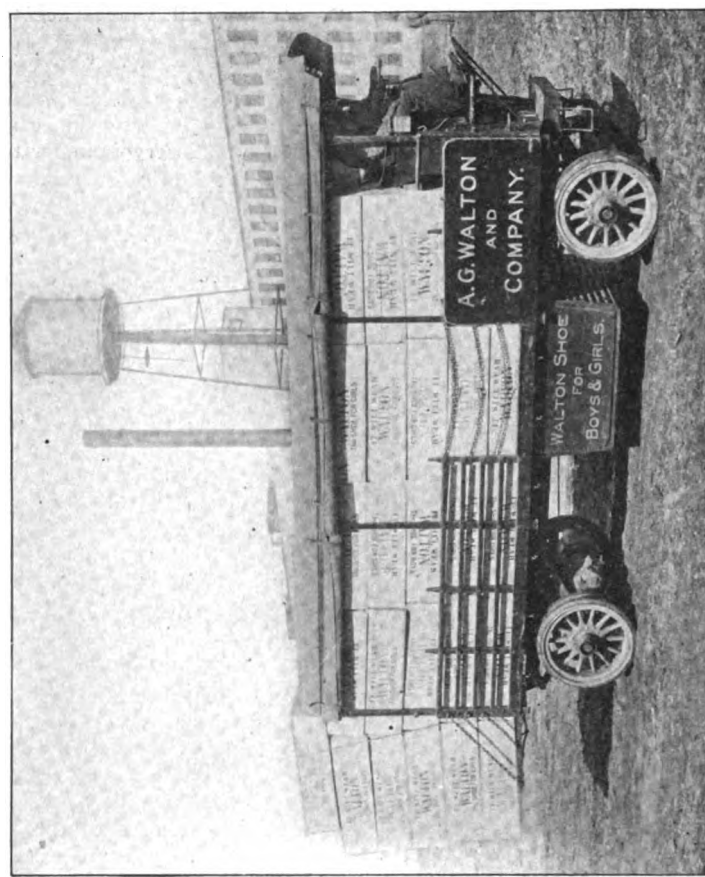
HAULING UNFINISHED CLOTH AT BIDDEFORD, ME.



HAULING COTTON CLOTH AT AMOSKEAG MILLS, NASHUA, N. H.



HAULING BALED COTTON AT LAURENCE, MASS.



HAULING SHOES AT A. G. WALTON FACTORY, CHELSEA, MASS.



## How Service Should Regulate Truck Selection

One of the greatest individual marvels of present day business accomplishment is the way the great city department stores manage their deliveries. Purchases made in the morning are delivered in the afternoon of the same day in many cases, even though the distance be 12 or 15 miles; sometimes the customer returns after lunch from a morning shopping tour to find the delivery boys from one or more stores already have arrived with the bargains. This is true of a daily traffic aggregating many tons of merchandise.

To add to the complication that is involved in the attempt to distribute a miscellaneous assortment of wares over a wide area within a few hours, there are the C. O. D. and shipment on approval systems. These permit the feminine shopper to exercise without restriction the special prerogative of her sex, and while giving the merchant certain psychological advantages in securing and holding trade, also add a vast amount of labor and expense to the delivery end of the business. If the C. O. D. purchaser happens to be "not at home" when the boy calls, it means that the goods must be taken away and one or more later attempts made to deliver it; if the goods do not suit, if the lady has "changed her mind" or if she happens to be "out of change," the goods must go back to the store, to be held, or put back into stock as the case may be.

Whatever intricacies in the way of book-keeping, losses and depreciation of stock and entanglements of administration this sort of policy may involve, it is very evident that it serves to throw an exceedingly heavy burden on the delivery department. With the general expansion of all business interests, therefore, and with the tremendous pressure of competition, it is not strange that the big stores of the big cities should have been among the first to look favorably and intelligently upon the motor vehicle as presenting a probable economic solution of some of their difficulties. Hence the great retail enterprises of New York, Boston, Philadelphia and Chicago may be taken not merely as affording a promising market for the power wagon of the future, but as having developed already some of the ripest and most consistent ideas in regard to motor vehicle applications to business needs.

How extensively some of these merchants have gone into the use of motors already is known; it is not intended here to demonstrate the extent of their application. That their use of trucks and deliveries has led to certain conclusions that

ultimately may tend to a great division of effort in the automobile industry is not so generally understood.

The point is that in store deliveries, as in all delivery systems of any magnitude, for that matter, the work immediately shapes itself into two broad classes. In one class loads of considerable magnitude are carried considerable distances, for the most part being received and discharged in bulk. In the other class lighter and less bulky loads are handled and are distributed piece-meal, usually from house to house. This subdivision of the work is the result of economic necessity. Suffice it to say just here that it has proved cheaper to haul three tons of merchandise, say, ten miles on a large truck and then shift the burden to three, four or even five small motor or horse-drawn deliveries than to carry the large transportation units clear through to the end of the line.

In this way the delivery problem is divided into transfer and distributing classes. In the recent commercial vehicle contest in New York City, cognizance of this distinction was taken in a public way for the first time, so far as is known. Commercial vehicle manufacturers and users rapidly are coming to see the importance of such a distinction, and sooner or later it is bound to have its effect upon design. What is more important, the development of the distributing class, as such, gives promise of accomplishing the complete establishment of the electric vehicle in municipal service.

In order to appreciate just what is involved it is necessary to go more deeply into the science of motor vehicle operation. Perhaps the best illustration of the principle involved is that which so frequently has been used in urging the advantages of motor vehicle haulage as contrasted with animal haulage, namely, that the machine does not "eat its head off" when not in use. Which is very true. But it is also true that the motor truck is earning money for its owner only when it is on the road and carrying a load. Furthermore, it yields its best returns only when it is carrying as nearly as possible its full rated capacity under suitable running conditions.

Pursuing this argument a little further it may be considered that every time the truck stops it ceases momentarily to be a remunerative factor in the business and becomes a burden. The heavier the truck investment, the greater the burden resulting from non-use, whether momentary or prolonged, and the greater the reduction

in earning power resulting from use under unprofitable conditions. In other words, ideal results would be obtained were it possible to employ as large truck units as the highway conditions would stand and to keep them in practically constant operation. To the small user, these considerations may not seem to be of material import, but where the tonnage is heavy and the user is accustomed to reckon all his profits in fractional coinage the consideration is of great import.

Applied to the delivery problem, the principle naturally leads to the use of large trucks for trunk line work. Goods are hauled to sub-stations directly and there split up into smaller loads, which are taken up for distribution to the destination of the respective parcels. For short radius deliveries within the immediate vicinity of the main distributing point it is customary to handle small loads exclusively.

Having thus established the requirement of the transfer vehicle, and also defined roughly the principle that it requires regular operation for economical results, it is possible to consider the individual needs of the distributing type. In the last analysis this type is used mainly for house-to-house delivery. That means that it starts with a full load and operates under a constantly decreasing load until it is empty, when it must return light from the limit of its route.

Another point about it is that it is subjected to frequent stops and starts. Theoretically, every time it stops it ceases to be a paying investment for its owner. Every time it starts it has to do a little extra work in overcoming its own inertia. That is to say, regardless of the size, type and motive power of the vehicle, more energy is consumed in traversing one city block if three stops are made than would be consumed if the distance were traversed without stop.

In making city deliveries, which is the bulk of the work undertaken by the big department and other retail stores, the time lost in stops frequently exceeds that consumed in actual movement between stops. This is particularly the case when the boys have to run long flights of stairs, wait for goods to be examined, attend to the details of receipts, credit slips, exchanges, returns, making change and answering complaints. It may be said that the time lost while the delivery outfit is standing at the curb is largely under the control of the merchant; it being his good pleasure to permit his customers all sorts of leeway in closing sales at their own

doors instead of at the counter. Obviously, however, so much of the cost of waiting time as may be governed by the nature of the equipment belongs to the delivery department, and hence is pertinent to the question of equipment.

An incident that arose in connection with the commercial vehicle run from Philadelphia to Atlantic City not long since will serve to indicate a crucial point in the problem. When the contest first was proposed the electric vehicle people exhibited considerable reluctance to enter. The situation is explained by George M. Graham, who engineered the affair for the benefit of a local newspaper, of whose staff he is a member. At a preliminary conference of intending competitors in the run representatives of the three concerns selling electrics in Philadelphia were present.

"These representatives were frank to say that the run was not one of a nature designed to show their product to the best advantage," says Mr. Graham, "particularly in comparison with gasoline trucks.

"They argued that the run was too long, and called them into a field that they did not claim to cover. Moreover it was not their purpose to deceive prospective customers into the belief that an electric was the proper vehicle for such extended trips. They explained that the electric was not designed for long road tours but was in its proper class when doing local and suburban delivery with frequent stops. One representative asked for a modification of the plan so that the run should cover about 50 miles through Philadelphia proper and the suburbs, specifying that 200 deliveries be made. These stops for deliveries were to average approximately two minutes. It was explained that while two minutes seems a short time, 200 times two minutes means 400 minutes or six hours and 40 minutes.

"If with a gasoline car, power was cut off 200 times and the car actually cranked 200 times, the minimum of power would be consumed, but the delay and the work of the driver would be seriously increased. Hence in 99 cases out of 100 the engine would be allowed to run during each of those 200 two-minute intervals, six hours and 40 minutes, and for the period when the car was stationary it would continue to burn oil and gasoline.

"The electric cannot be stopped without turning off power. The start requires no cranking and changing of gears. The actual miles measure the cost of operation. The representatives of the electric cars contended that a run planned on these lines would be much fairer to them."

The circumstances that the gasoline engine is so constituted that it must be cranked before it will start, and that it will consume both fuel and oil if left running while the vehicle is at rest constitute drawbacks to its use for short-haul deliveries that are not possessed by the electric. Conversely this explains in part why the elec-

tric so frequently is found in the metropolitan service of large stores.

But while it is true that the electric is better fitted for distributing work where short hauls and frequent stops are involved than the small gasoline car in its present state, it by no means follows that it affords the ultimate solution of this part of the problem. Under some circumstances it is still cheaper to use horses than electrics. In the opinion of Louis A. Ferguson, of Chicago, an eminent central station expert, the only real competition between horses and the electric delivery wagon comes at an average daily route of 25 miles. Below that distance animal traction is apt to prove less expensive under present circumstances, while with greater mileages, the electric should prove more economical, other things being equal.

Several known instances in actual practice may be cited in support of this conclusion. One large furniture dealer in Boston, after several years of experimenting with various types of equipment has reached the conclusion that for deliveries within a 15 mile radius from the distributing point the electric is more economical; outside the 15-mile radius gasoline cars are universally employed. In one case in New York City, a large store uses motor trucks only for longitudinal transfer purposes, hauling goods from its shipping rooms to transfer stations uptown. From that point the distribution to consumers' homes is carried on by means of horse-drawn wagons. Still another firm in this locality has had conspicuous success in distribution, sub-stations being located in surrounding towns, where the truck loads are rehandled by horses. One reason for the success of this system has been that it provided a night schedule for the truck. Not only does this permit a maximum of economy to be derived from the motor vehicle equipment through service both day and night, but in using the highways and city streets at night, when they are free from traffic, good running time can be made; and it is a significant comment on the efficiency of the system that it ensures more prompt service than is possible in the particular territory served when the regular express system is depended upon.

The mere fact that horses still are employed so extensively by houses that rely on motor trucks for a part of their work, however, by no means can be taken as significant of present understanding of the economies of the distributing problem. What is definitely known is that the large truck can be worked in the service of a large business in such a way as to bring about considerable economies, replacing two, three, sometimes four, horse-drawn rigs. The establishment of the motor truck in transfer work thus is pretty well under way. But in the distributing end of the average business, particularly that of the

large stores, in addition to the uncertainties that are recognized in regard to the absolute economies of motor wagons, there is the point that the users already have a heavy investment in horses and wagons.

It is not easy to persuade a large operator to sacrifice such an equipment at prevailing market prices, nor is it an easy matter for the commercial vehicle salesman to guarantee that the automobile equipment will be sufficiently economical to wipe out the loss by disposing of the old installation and still show a profit. Therefore, even where operators are favorably disposed toward the motor vehicle, there is a disposition to motorize the equipment gradually, letting the installation of the automobiles come in the form of renewals of worn-out equipment of the other sort.

A striking and, so far as is known, the only exception to the rule, is the case of the big Gimbel store in New York City, which, being newly equipped throughout, has a horseless delivery installation. It also is significant that provision has been made for the use of both gasoline and electric cars, although the latter predominate, and that the bulk of the equipment consists of electric delivery wagons.

As far as the future of the industry is concerned, it is plain to see that it must be affected in some measure by the distinction between transfer and distributing service. Furthermore, the nature of the territory to be covered and the demands of the service must be considered in weighing the qualifications of any one type for the work. There appears to be small question of the efficiency of the electric for short-haul city work. Similarly, it would seem that the handling of deliveries over long hauls and particularly through country districts comes unmistakably within the province of the light gasoline machine. The longer the haul and the fewer the stops, the larger the economic capacity of the car. The limit approaches that of the true transfer vehicle, which is designed for trunk-line service. But the absolute dividing line between the proper zone for the electric and the gasoline car remains to be determined.

Likewise it remains for the gap below the effective mileage of the electric to be filled by some lighter and even more economical type of delivery vehicle. That it might be of the small gasoline type and of a style of construction approaching that of the motorcycle is a suggestion well worth pondering.

#### Automobile Road in Mining District.

Built by subscriptions from the citizens of Nogales, Ariz., and Nogales, Mex., an automobile road from Nogales to Altar, Mex., just has been opened for travel and an automobile stage service instituted. The road is 80 miles in length and penetrates the Mexican gold mining district.

## CHANGE SPEED GEAR IN NEW FORM

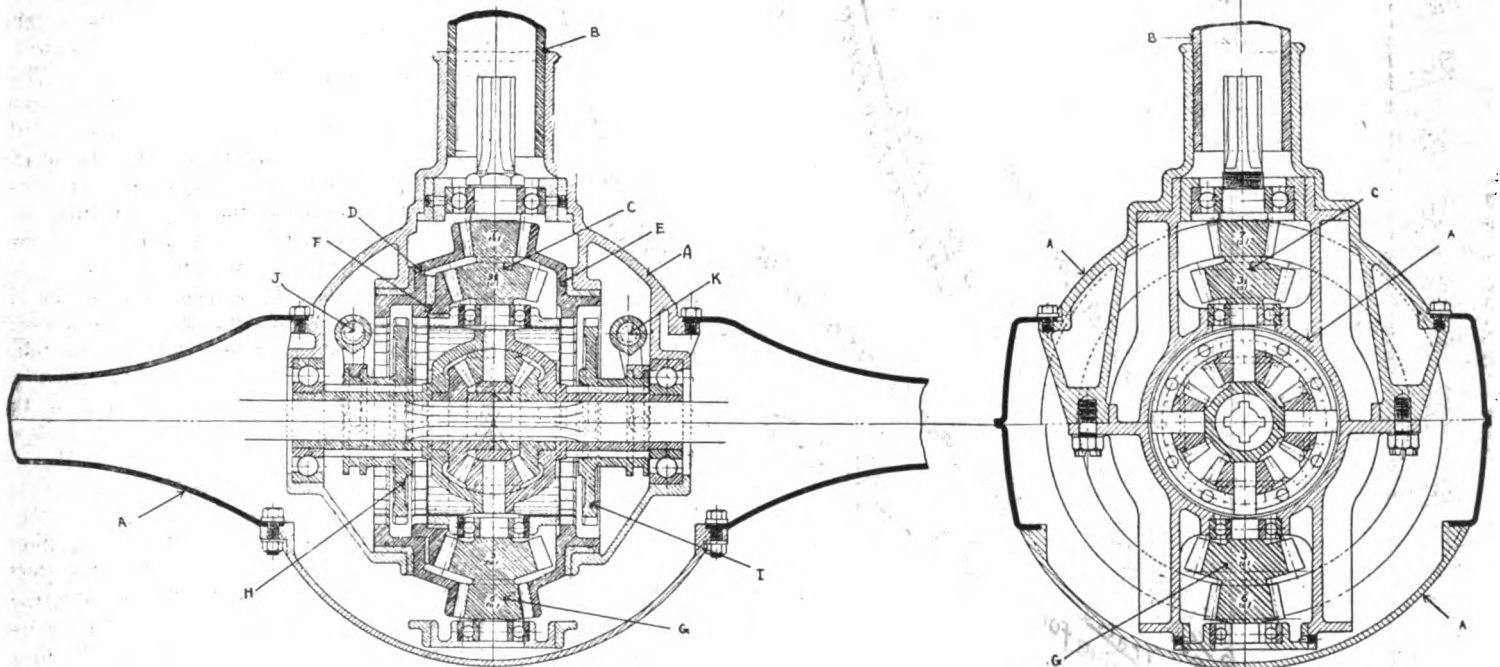
**Bevel Gears and Positive Clutch Replace Sliding Pinions—High Efficiency and Other Advantages Claimed.**

Change speed gears in which each connection affords a direct drive have been produced by several inventors at different times, but in the Collins system, which is just being introduced, the effect is secured by an entirely novel method whereby the individual gears are required to transmit less than the full power of the engine. In explanation of this seemingly paradoxical assertion it must be added that the system

Considering the construction in detail, the form of the axle housing and torque tube, A-B, is perfectly regular. Instead of the usual driving pinion at the rear end of the propeller shaft, however, a double gear member, C, is employed. The gear face, which constitutes the smaller face of this member meshes with two large crown gears, D-E, one on either side of the shaft, while the larger pinion face engages a smaller crown wheel, F. The large bosses of the gears D and E constitute the journals upon which they run and which are supported in bearings cored out of the housing structure, A, and suitably bushed to take both radial and thrust loads. The inner crown wheel, F, floats between the gear member D and the fixed inner frame-

unit is provided with extended sleeves, the extremities of which are carried in annular ball bearings, which are splined and upon which are mounted the sliding toothed clutches, H-I, actuated by the control shafts J-K. By moving the clutch H toward the center of the axle the inner crown wheel, F, is positively connected with the axle and the high speed drive is thereby secured. When the same member is moved to its extreme outward position, the outer crown wheel, D, is connected with the axle, and the low forward speed relation is secured. The reverse is obtained by engaging the clutch I, thus locking the bevel gear E to the axle.

The system in this way provides a direct drive on every speed and also has the ad-



THE NEW COLLINS TRANSMISSION AXLE WITH CONSTANTLY MESHED BEVEL GEARS

provides a group of constantly moving bevel pinions and gears between which the load is divided automatically. The entire arrangement, indeed, suggests very broadly the ordinary bevel type of differential, and with this in mind its action is easily understood. The new change gear is being produced by the Collins Axle Manufacturing Co., Pittsburg, Pa., and is embodied in a neat and rather conventional rear axle of the full floating type.

From the accompanying illustrations, which show the arrangement in side and end sections, a good idea of its simplicity and compactness may be obtained. It differs from the ordinary rear axle of its class mainly in that there are three large bevel gears instead of only one, and two driving pinions, instead of one. Either of the three driven gears may be connected to the axle proper by means of positive clutches to secure the two speeds forward that are provided or the reverse.

work of the housing, shown at A in the end view of the axle.

Up to this point the system does not differ materially from other forms of bevel change gear which have been developed. An important point of difference is involved in the introduction of a pair of idler pinions on a short shaft carried in the case directly opposite the driving shaft and coaxial with it. This group is shown at G and is identical in form with the driving group to the extent that its smaller bevel meshes with the crowns D-E and its larger face with the small crown wheel F. The entire arrangement thus may be likened roughly to a differential within a differential. The whole group of gears constantly is in mesh and constantly in motion regardless of the speed ratio. The driving stresses, moreover, are distributed between the gear faces so that the load is balanced over a large area of effective tooth surface.

The floating housing of the differential

vantage that the maximum torque transmitted is that of the engine—no multiplied power being carried through the gear teeth, as the Collins company expresses it. On this account it is possible to employ 8-pitch teeth with the same effective strength as would be obtained ordinarily where 4-pitch is employed. A wide variety of ratios is possible, thus rendering the system adaptable to many different running conditions, while the sizes are approximately those of the present styles of driving axle.

In addition to claiming a high rate of efficiency, which is borne out in laboratory tests with the transmission, it is claimed that the system, with two speeds, will equal the performance of any other gear having three speeds, and do so with greater ease of operation, less noise and less wear. The drawings here shown indicate two different sizes of pinion, as showing the applicability of the system to different running conditions. This is done merely for

purposes of illustration, however, the diameters of the pinions on opposite sides of the axle, obviously being equal in practice.

Certain tests of the Collins axle, which have been conducted at the laboratories of the Westinghouse Airbrake Co., in Pittsburgh, have shown for the system the remarkable efficiency of 98 per cent. The average value for a series of eleven test runs was 88.4, which is still far above the average for the ordinary sliding gear arrangement. The lowest efficiency obtained was 72.5 per cent.

The accompanying diagram is intended to furnish a comparison of the operation of

efficiencies of 65, 72 and 85 per cent.; in the three cases. The two-speed Collins axle performance is figured on a basis of 98 per cent. efficiency for both speeds. The rapid rise of the acceleration curve in the case of the new system, of course, is due to its higher efficiency

#### Making Repairs With Portable Vulcanizers.

In repairing punctures with the aid of small portable vulcanizers the first requisite is absolute cleanliness. Gasolene should be used freely and the wetted section to be repaired thoroughly roughened with sandpaper. As soon as the last vestige of gas-

two or three minutes longer. In repairing cuts in outer casings the hole is cleaned thoroughly as above and filled nearly level with scraps of rubber. The vulcanizer must be left on these repairs for from 40 to 60 minutes, according to the depth of the cut. The tire should be left partly inflated on the rim in order that the vulcanizer may be clamped tightly, as otherwise the repair will be porous. Although perfectly satisfactory repairs of blow-outs have been made by amateurs, it is a difficult job and the better plan would be to entrust the work to some tire repair man.

#### Massachusetts Motorist's Cigar Lighter.

Instead of going to the trouble of trying to keep matches alight or of igniting a piece of gasolene-saturated waste with the magneto spark in order to get a light for his cigars, John H. Bragdon, of Haverhill, Mass., has rigged up an attachment to the steering post of his Franklin touring car which serves the purpose in wind or calm and is convenient and ever ready as well. The wires from the cigar lighter run to the switch that lights the car. The electric power is generated by a small dynamo which is clamped onto the transmission sleeve and driven by a belt from a small pulley. This dynamo charges a small storage battery contained in a box on the running board. To obtain a light, the switch is thrown, the current from the battery produces a jump spark which the wind cannot blow out.

#### For the Prevention of Cold Feet.

Robes with pockets in them which just fit the feet help to keep the feet warm during the winter, but may be found rather cumbersome, especially if a foot accelerator is used. If, however, some sort of a covering be made for the pedals that will prevent the feet from coming in contact with the metal, the discomfort of cold feet will be considerably reduced. Rubber pads which fit the pedals are of course the best things to use, though cork, if it can be obtained, is serviceable, and even wood is better than nothing.

#### To Unscrew Spark Plugs from Valve Cap.

On a number of engines the spark plugs are screwed into valve caps which in turn are screwed into the engine casting. It is a common fault with such construction that the plug and valve cap turn as one when it becomes necessary to remove a plug. One way of getting the plug out and leaving the valve cap undisturbed is first to tighten the plug until it slips a fraction of an inch. A quick jerk in the opposite direction will then loosen the plug and leave the valve cap tight. After the plug has been removed separately from the cap, it would be a good plan to avoid any such further difficulty of plugs sticking by applying a small amount of grease to the threads before replacing in the cap.

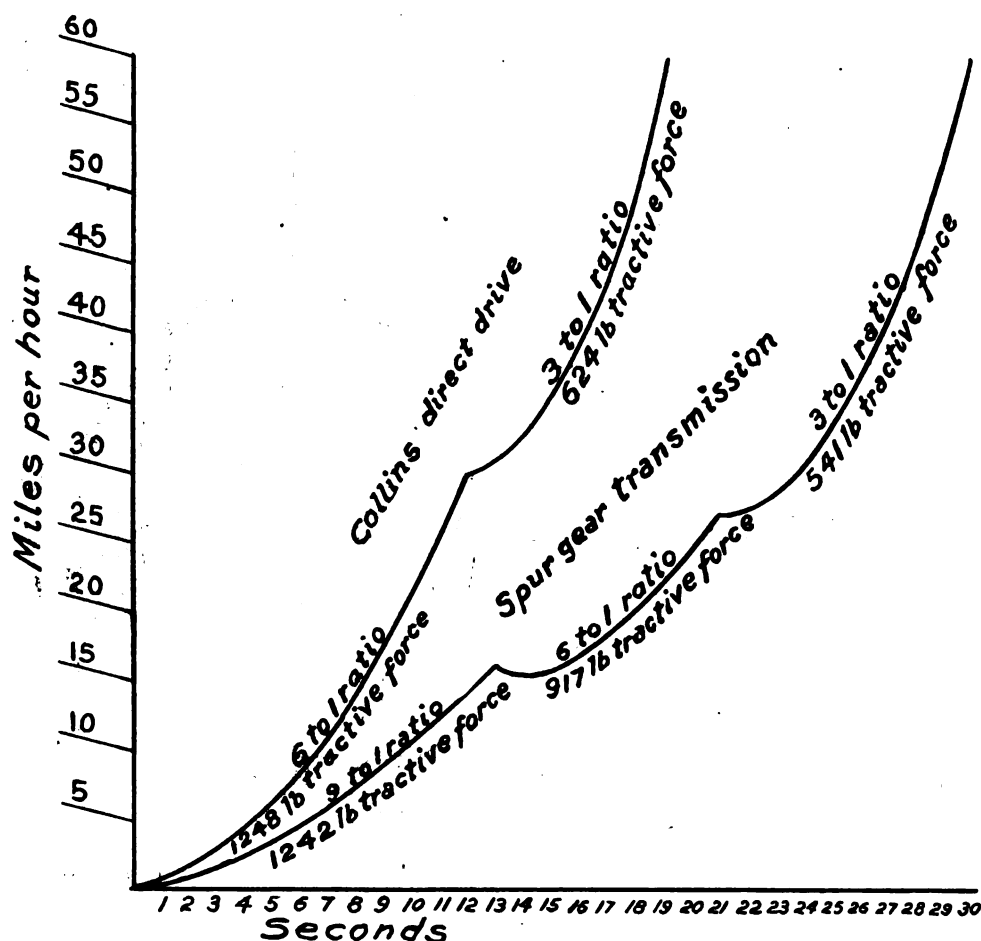


DIAGRAM SHOWING ACCELERATION WITH COLLINS CHANGE GEAR

the Collins with the ordinary three-speed sliding gear. It also is illustrative of the high power of acceleration which is attainable where a low transmission loss is encountered. The curves are based on the assumption that a speed of 60 miles an hour is obtained with a spur gear transmission in 30 seconds. One hundred horsepower, transmitted, in one case through the ordinary type of gear, and in the other through the Collins axle, develops the tractive forces shown on the diagram, figured at the rim of a 36 inch wheel, the engine speed being taken uniformly at 1,650 revolutions per minute.

The spur gear gives driving ratios of 9 to 1, 6 to 1, and 3 to 1, respectively, with

olene has evaporated, a thin coating of vulcanizing cement should be applied, allowed to dry for two or three minutes and followed by a second application. A piece of crude para rubber about half an inch larger all around than the puncture is pressed firmly over the hole, and the vulcanizer, which should have been heating during the previous operations, clamped tightly over the whole. The heat should not be permitted to get higher than 265 degrees Fahrenheit, or the surrounding portion of the tube may be overcured or scorched. From 10 to 15 minutes is the time usually necessary for perfect curing. If the patch looks brownish when the vulcanizer is taken off, it should be put on again and left



# Making Most of Motor Propelled Fire Engine

At the recent Budget Exposition of the City of New York, the exhibit of the fire department was graced by a placard bearing a short cost tabulation and this legend:

"Moral: All apparatus in the Fire Department should be auto-propelled."

The figures set forth that the automobile hose wagon now in service at Engine 72 had cost \$6,712 to install and \$85 to maintain during the year 1909. The standard hose wagon drawn by three horses represented an initial investment of \$2,954, and its annual upkeep represented an outlay of \$799.08.

The growing employment of self-propelled apparatus by fire departments throughout the country caused the International Association of Fire Engineers to devote considerable time to the subject at its annual convention held recently at Syracuse, N. Y. Among the several contributions to the program that presented by Chief Charles S. Allen, of the Trenton (N. J.) department was particularly instructive.

"The fire departments of this country are today confronted with the problem of choosing between the automobile and horse drawn fire apparatus," Chief Allen remarked. "The departure from the horse which has been the propelling power for so many years, and which has been considered the only safe and reliable means of hauling our apparatus does naturally cause a doubt in the average chief's mind as to the practicability of such a change; and still a greater doubt exists when we consider the proposition of substituting the gasoline motor, in place of steam power for the operation of our pumps. Yet notwithstanding our doubts, present indications point to a rapid change in this direction in the near future. Manufacturers of fire apparatus in this country have been watching carefully the development of the gasoline motor, for the express purpose of introducing this feature into the fire department service. A great deal of time and money has been expended in this direction, and fairly good results have been obtained thus far, but I feel safe in predicting still greater results in the near future. And while the manufacturers are doing this I feel that we as chiefs of departments have a duty to perform in this direction; I feel that we should view this matter in a broad and liberal light, not allowing preference or prejudice to sway us in what we believe to be our duty to the builder, and for the best interests of the fire service in general. They should have the benefit of our knowledge and our hearty support and co-operation in perfect-

ing and improving this type of automobile fire apparatus, which now seems designed to revolutionize the fire service of this country.

"The automobile fire engine as constructed today has without question many advantages over the horse drawn apparatus; and yet we find by experience that the automobile engine has some disadvantages that must not be overlooked in their future construction. In my opinion the first and most serious objection to the present type of automobile apparatus is the excessive weight of the load now being carried on pneumatic tires. The various makes of automobile engines now in use will weigh from 80 to 90 hundred loaded. This, in my judgment, is overloading the pneumatic tire and is a question to be seriously considered in the future. The desire of some departments to have the automobile engine equipped with large heavy chemical tanks in addition to its present load is wrong and should be discouraged in every case; as you cannot carry the entire equipment used at a fire on one piece of apparatus, and do it safely. And I might say such a combination does not work well, as the chemicals are wanted in front of the building, and the engine should be at the hydrant, connected and ready for immediate use should the chemicals fail. Therefore I do not recommend such a combination.

"The tire problem is one with which you are all familiar, and is subject to the same condition and danger as the ordinary automobile in use. I might say that during the three and a half years service with the automobile we have had but few failures from any cause whatever.

"Another proposition that is giving the manufacturers considerable anxiety is the solution of the pump problem. The various types now used on automobiles are not as satisfactory as we would like, and we must admit that the weight and space are two important factors to be considered in the construction of an automobile engine. The ideal pump for this work should be light and compact, of large capacity, and so geared to the motor that the power may be applied as direct as possible; and one requiring the least possible energy to operate, as under present conditions we find no spare energy when pumping up to full capacity. While our present pump has given us excellent service and no trouble, yet I feel that the present types of pumps used can, and will be, improved upon in the near future.

"The above subjects are merely matters that will have to be dealt with in future

construction, and the gradual development of the automobile engine.

"There is no question but that the automobile engine has many advantages over the horse drawn apparatus; and some that are worthy of consideration.

"The first to be considered is a comparative statement of companies using the two types of apparatus; and for your information I will state that two companies were selected for this purpose, one automobile company with a crew of seven men, the other an engine company with a crew of nine men, both companies located in the same district and doing the same work. The cost of the auto company including salaries, supplies and repairs for a period of ten months was \$5,921.60, while the cost of the engine company for salaries, supplies and repairs for the same period of time was \$9,015.21, or a saving of \$3,093.61 in favor of the automobile company.

"These figures tabulated show:  
Maintenance of engine company... \$885.41  
Maintenance of automobile company ..... 151.60

Total saving ..... \$733.81  
Salaries of engine company, 9 men. 8,129.80  
Salaries of automobile company, 7 men ..... 5,770.00

Total saving in salary ..... \$2,359.80  
Total cost engine company ..... 9,015.21  
Total cost automobile company.... 5,921.60

Saving in comparative cost of maintenance ..... \$3,093.61

"The difference in cost of maintenance, as you will note, is the employment of two less men on the automobile company and the cost of feeding, shoeing and caring of four or five horses of the engine company. In fact, when the automobile is idle there is no expense attached to it; while the engine company has a fixed charge of expense at all times. The saving of two men's salary is a large item of expense without impairing the efficiency of the company, and I might say that we get better results from seven men on the automobile than we do with nine on the engine company.

"Another good feature of the automobile is the despatch in reaching fires; this you all know is a very important factor; and I have no doubt that chiefs who are using the automobile as a conveyance have had this feature brought forcibly to their attention. The automobile in responding to a call in the busy or congested section of your city, and running at a speed of 15 or

20 miles an hour is always under absolute control, and is less liable to accident than the horse drawn apparatus going at a much reduced speed.

"Driving an automobile engine at high speed through your city does not pay, and the practice should be discouraged, as the small amount of time saved does not warrant the risk taken.

"Another good feature of the automobile engine is the efficient service rendered in the early stages of the fire; you are not delayed with low steam pressure, a poor fire, or an incompetent stoker, as frequently occurs with the engine; but as soon as the automobile is connected, and the water is turned on, in less than one minute you have the full capacity of your engine if you wish. The stream is just as good the first minute as it will be at any time of the fire; and we find it a decided advantage to have a stream that will cover an area of from 200 to 225 feet right at the beginning of a stubborn blaze.

"The automobile engine for traveling through snow and hill climbing is a decided success.

"During the past winter we had considerable snow in our section of the country, and all of our automobile apparatus was given a severe test in responding to calls, and I might say that we were able to go through snow drifts where four horses would not take the same load. In fact, the performance of the automobile in the snow was far beyond our expectations; and we have no hesitancy in saying that it is the only safe apparatus to use in snow.

"We have used in our city a Webb motor fire engine for the past ten months, which has given very good service. We have had tire trouble three times during that time defects that were due to manufacturer and were replaced free of charge. We had transmission gear trouble once, due to a defect that has since been corrected, and will not happen again. All other minor details were taken care of by the operator at slight expense. In expressing my opinion of the automobile engine I will say that present indications point to its use in fire departments in the near future, with many improvements no doubt over the present type, and I would therefore advise fire departments not to discard engines, but keep them all, and as soon as the opportunity offers put in one or two pieces of automobile apparatus, and give them a fair trial, and arrive at their own conclusion. The more departments using them the quicker we can determine their value in the fire service. We have given many demonstrations for the benefit of other cities, and shall continue to furnish such reliable information as we may have bearing on this subject, and hope to see the automobile engine perfected, and in general use, relieving the horse of his dangerous and arduous duties in the near future."

## FIRE WAGON FOR DOUBLE DUTY

Designed for Chief's Service but Equipped to Render "First Aid"—Sensible Compromise for Small Cities.

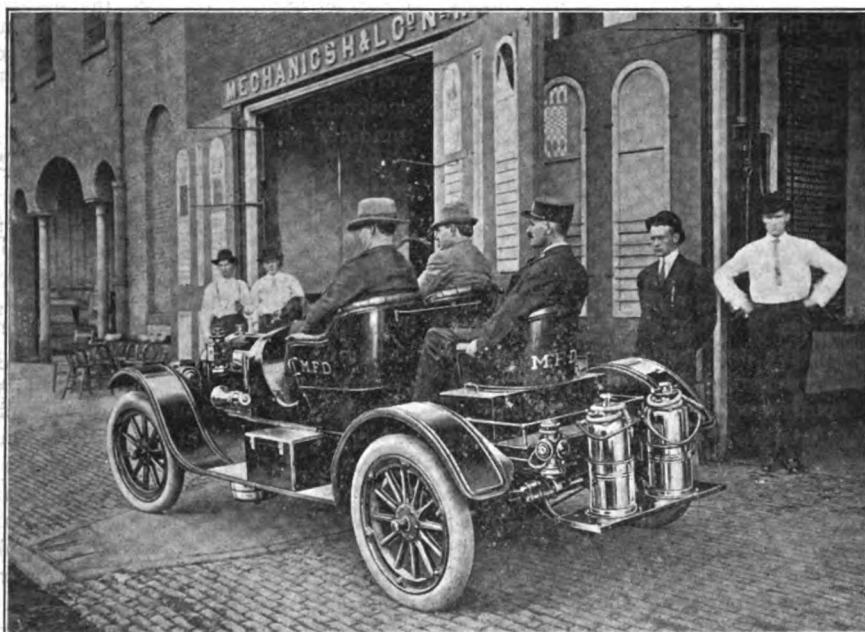
While the chief of the New York fire department travels to the seat of trouble in a great big motor car, with siren horn and loud tongued bell heralding his approach, his is purely a speed machine and one scarcely within the needs and revenues of smaller communities.

In Montgomery, Ala., for instance, they have effected a sensible compromise. The

period of three years without even having been removed from the rim. It was attached to a Locomobile demonstrating car used by a Chicago garage, the car itself having covered 58,000 miles in five years and with but one change of tires.

### Buses Again Declared "Commercial."

The contention of the Fifth Avenue Stage Coach Co. that the buses which it operates on the famous New York thoroughfare are commercial vehicles in the sense of the Callan law, was upheld by the Appellate Division of the New York State Supreme Court, at Albany, N. Y., in a decision rendered on November 16th. The decision was brief and did not contain a



DOUBLE DUTY FIRE CHIEF'S WAGON IN USE IN MONTGOMERY, ALA.

chief of that city's fire department has been furnished with a White gasoline runabout, and instead of being intended merely to hurry the chief to conflagrations it is designed and equipped also to render what may be termed "first aid," as the accompanying illustration serves to show.

The runabout is fitted with a rumble seat and thus provides room not only for the chief and his driver but for an extra fireman, the car being equipped with a couple of chemical fire extinguishers and other emergency fire-fighting apparatus which will permit the men to subdue a small flame before the horsedrawn apparatus is able to reach the scene.

### Chicago Reports Staggering Tire Record.

"High-score" tire records continue to pile up, and though the St. Louis record of 18,000 miles without reinflation is in a class by itself, Chicago has come to the front with a record that almost staggers belief—one of 28,000 miles service without a puncture, the tire, a Diamond, having been in constant use winter and summer for a

judicial opinion, merely affirming the decision of the lower courts. Under the regulations of the Callan law, commercial vehicles are taxable at the rate of \$5 per year, while passenger automobiles pay according to horsepower, which in the case of the Fifth avenue coaches would amount to a tax of \$15 per bus. The decision of the Appellate Court, however, has been appealed, as it is the intention of the Secretary of State to have the term "commercial vehicle" defined judicially.

### Way Found to Advertise Gasolene.

Gasolene is one of the substances in such general use that to advertise its sale—except by a lowering of price—in a manner designed to attract patronage appears so difficult as to be well-nigh impossible. In Phoenix, Ariz., however, a dealer has evolved a way to attain that end. He advertises that he will pay "a dollar a drop" for water found in his "guaranteed chamois-strained gasolene," and further offers to return their money to all dissatisfied purchasers.

**ARGENTINE AFFORDS OPENINGS**

**Visitor from Buenos Ayres Points them Out—Peculiarities of Trade in the South American Country.**

Motorists who are troubled with the "chauffeur problem" might find some of their difficulties lessened were conditions the same here as they are in Buenos Ayres. There the garage charges are made to include the salary of the chauffeur, his livery, all repairs except tires, gasoline, oil and garage space. The drivers, who are on call day or night, receive 150 pesos, or \$66 per month.

No less than \$6,000,000 worth of cars were imported for the Argentine market last year, and the business is reported as being in a lively condition and promising. Indeed, the situation is represented as being particularly favorable for the introduction of motor trucks, the country's real need of such vehicles being explained by E. A. Feibelman, an importer of Buenos Ayres, who is at present visiting New York City, in the course of a recent interview.

While European manufacturers already have secured a good hold in the introduction of pleasure cars, they have accomplished practically nothing as yet in securing the adoption of commercial vehicles. Yet there is an enormous field for the business wagon in connection with the wide industrial development which the Argentine Republic at present is undergoing. As Mr. Feibelman expresses the real opportunity, "the long stretches of territory, as yet uncovered by the railroads, except in specified directions, are subject wholly to horse transportation, and the truck can be used to tremendous advantage among the ranches or estancias in the carrying of hides, beef and grains."

"These ranches lie in all directions, hundreds of miles from railroads, and the products are transported in caravans, with 12 to 15 wagons hauled by from 18 to 22 horses each," he goes on to say. "These hauls average, according to weather, 15 to 20 miles daily, and a relay drove of horses, 250 to 300 strong, always precedes the caravan, making a total of upwards of 500 horses in the caravan. This is expensive business, for while horses are worth about \$40 each, under some conditions it costs as high as \$40 a month to feed them, and in all cases it is extravagant. Then they are grass fed, wholly, and consequently not strong enough to stand heavy work. In these long cross-country hauls the horses die in droves; in many instances they are beaten to death, and it is not uncommon for an entire caravan of horses to die off—sometimes 500 horses as a total. Losses always average 2 per cent. to 5 per cent.,

and 20 per cent to 25 per cent is all too common.

"The motor truck can obviate this, covering four times the horse run in a day. There are a few Benz trucks in operation down there, introduced by the progressive Germans, and it behooves American makers to get in early, else the truck business will be lost.

"Buenos Ayres has an area twice as large as Paris. The department stores have city deliveries 16 miles long, and electric machines would have a strong call. The gasoline truck would monopolize the country stretches where no power stations exist, some of the distances which they would have to cover taking in whole provinces where no railroad reaches. These ranches constitute the wealth of the country, which you can estimate from its banks holding the fourth largest gold reserve in the world.

"In the United States the railroads were followed by the colonists. In the Argentine Republic the railroads follow the colonists. Therefore, it is the province of the motor truck to open up the country and occupy relatively the position in development that the railroads occupy in the United States.

"Another thing, besides cost of feeding, that reacts against the horse is the high wages paid drivers, who receive \$1.75 to \$2.50 for driving inferior horses. The percentage that trucks can earn there is consequently higher than here.

"What the Americans require is an aggressive campaign, the maintenance of suitable garages and repair shops where rapid changes can be made. Heretofore American firms have come down with a chip on their shoulders demanding terms no South American firm could countenance. They would say they did not need to export anyway, and let it go at that. On the contrary, the Europeans, who are after the business, were prepared to extend the habitual credits, and consequently receive the favors.

"However, new conditions have arisen the past few months since the Government ordered three Dreadnaughts built in the United States. It has created a new confidence with us, and American goods are looked upon with more favor. If Americans will show the same readiness as Europeans, then there is a harvest to be reaped in South America.

"Last year we imported \$6,000,000 worth of automobiles, almost entirely from Europe. About 60 per cent. was Panhard business, the remainder being Renault, Delauney-Belleville, Napier, Fiat, Lancia, Benz and DeDion. Of the American machines, I recall seeing only Ford taxicabs and Packard pleasure cars. The Americans seem to delight in painting their cars a brilliant yellow, while we, of the Argentine Republic, like dark green and maroons.

"Demi limousines and laudaulets are in

favor, as the winters are not too cold, and these cars are readily converted into an open vehicle, being used this way in the day and closed for the opera at night. Many people own strings of cars, ten or fifteen in number, and their use is increasing, as the natives have enjoyed great wealth the past ten years.

"Some of the most up-to-date garages in the world are in Buenos Ayres, some with fireproof steel lockers, like a safe, in which you back your car at night and lock it up. In addition to the Panhard, the Mercedes and Fiat people have particularly fine garages and repair shops.

"Some idea of the extent the automobile is used may be gained by citing the fact that 22,000 licenses have been issued, the fee being 100 pesos, or about \$44 in American gold. Garage charges depend upon the size of the car and its horsepower, but average about 6,000 pesos, or \$2,800 gold. This charge includes salary of chauffeur, his livery, all repairs except tires, gasoline, oil and garage space. The chauffeurs are on tap day and night. Chauffeurs receive 150 pesos (\$66) per month.

"A large renting business is also done, and rented machines cost about \$4.40 per hour. If a machine is hired by the month the terms are 800 to 1,200 pesos, or \$350 to \$550. A new taxicab company is in process of formation which is in the field to buy 300 machines."

**Motor Cars for Political Campaigning.**

Although few candidates for office find it possible nowadays to dispense with the use of automobiles, not many will be likely to overlook its possibilities as a mode of quick travel, as shown by the record made by Congressman G. M. Hitchcock, candidate for the United States Senate and Congressman Latta, who, during the last political campaign, covered 1,00 miles in nine days. While this distance is not remarkable for an automobile to travel in nine days, the fact that the candidates made speeches, in duration up to three-quarters of an hour, in from seven to 13 towns a day in the 19 counties embracing the third congressional district of Iowa, makes apparent the record-breaking feature of the trip. Ed. Latta, son of the congressman, was at the wheel of the Stoddard-Dayton in which the campaign was made.

**For a Million Dollar Boulevard.**

Plans for a boulevard 200 feet wide and extending from the Queensboro Bridge, Long Island City, N. Y., via Thompson avenue, Hillside avenue and Jamaica to the southern limits of the borough of Queens have been filed by Nelson P. Lewis, chief engineer of the New York Board of Estimate. It is estimated that this work will cost \$1,000,000, 50 per cent. of which is to be paid by the city, 30 per cent by the borough of Queens and the remainder by the property holders along the proposed route.

## TO KEEP THE CAR'S DASH CLEAR

**Remy Produces a Line of Magneto Switches to Assist that Purpose—Several Types Are Offered.**

Doing its part to assist the general tendency to clear car dashes of encumbrances, the Remy Electric Co., Anderson, Ind., has brought out a line of kick switches to be used in connection with their well known magneto and which, as might be expected are well and handsomely made, and of suf-

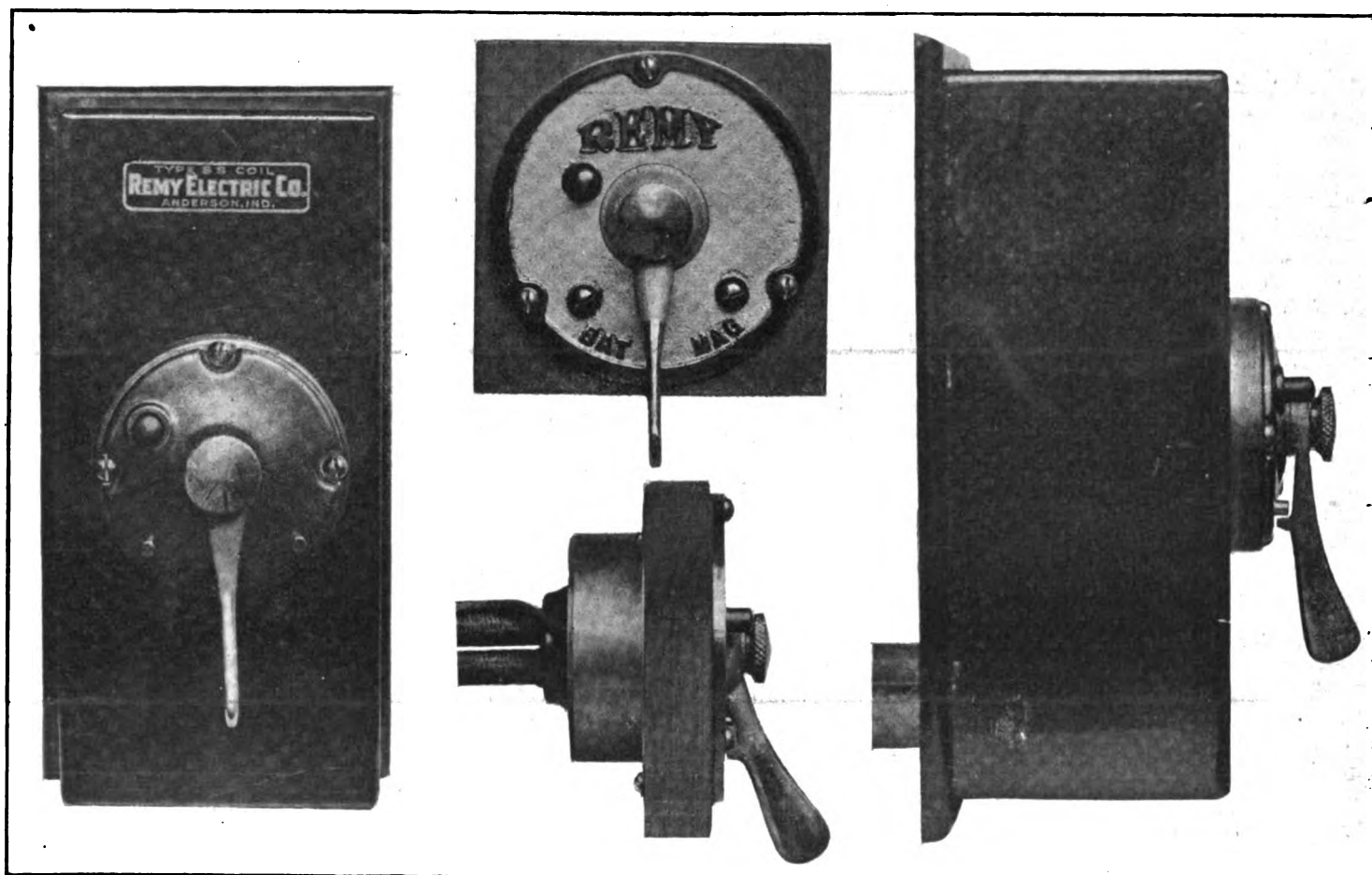
is made as a kick switch only, and when installed is nearly flush with the dash. It is of brass throughout and of very good appearance. Both of these types are shown in the accompanying illustrations. The third, type B, is made with a hand key or kick pedal, and is compactly built for small or crowded dashes. Both types A and B are of metal, finished in black and brass, except so far as the hand key is concerned: it is of hard rubber. The kick pedal proper is of brass, the upper part having a sand blast finish and the lower part polished. Type C is of brass throughout.

All of these switches are provided with

loading causes undue distortion and that it throws the working parts of the car out of line. The gear ratio also probably is too high and the springs unsuitable, and either or both failure to climb hills and mechanical derangements, difficult to account for, are the natural result, and as a rule the owner or the chauffeur promptly proceeds to damn the car instead of placing the blame where it belongs.

### Sliding Door as a Show Window.

Combining the front of a garage into a show window and an entrance has been done by a garage owner whose quarters



REMY TYPE A (FRONT)

TYPE C, FRONT AND SIDE VIEWS

REMY TYPE A (SIDE)

ficient variety to meet practically any call which may arise.

One feature of these new switches is the ease with which they may be installed. All wires are cabled and each has a terminal clip, eliminating soldered connections. Each of the two cables of the dash kick switches is plainly marked in colors and connected to the corresponding color binding posts. The cables are equipped with a brass diverging device which holds each wire at the proper angle for connecting, and at the same time prevents fraying of the insulation.

Three types are built, one, type A, having a hand key or kick pedal, mounted upon a highly polished box and similar to the switch made in 1910. Another, type C

a hard rubber button for starting the motor on the spark when batteries are employed, and with a detachable key which, by its removal, renders the switch inoperative.

### Overloading Cause of Unsuspected Ills.

Gross overloading of a chassis is an evil which is not infrequent and in many cases both chassis maker and coach builder are blamed for what is really the fault of the owner. Some owners buy a light four or five passenger car, and after a time, replace the original body with a much heavier limousine or other closed pattern, while others make a practice of carrying too heavy a load in the smaller and lighter bodies, quite unconscious that this over-

did not permit each of the features to be arranged separately. The front is taken up entirely by two large windows, one of which slides by the other in the manner of a sliding door, leaving an opening through which the cars may be taken. The machines are run in upon two flanged planks, the ends of which are placed on the sill. The window is then closed and the cars left on exhibition near the front of the garage.

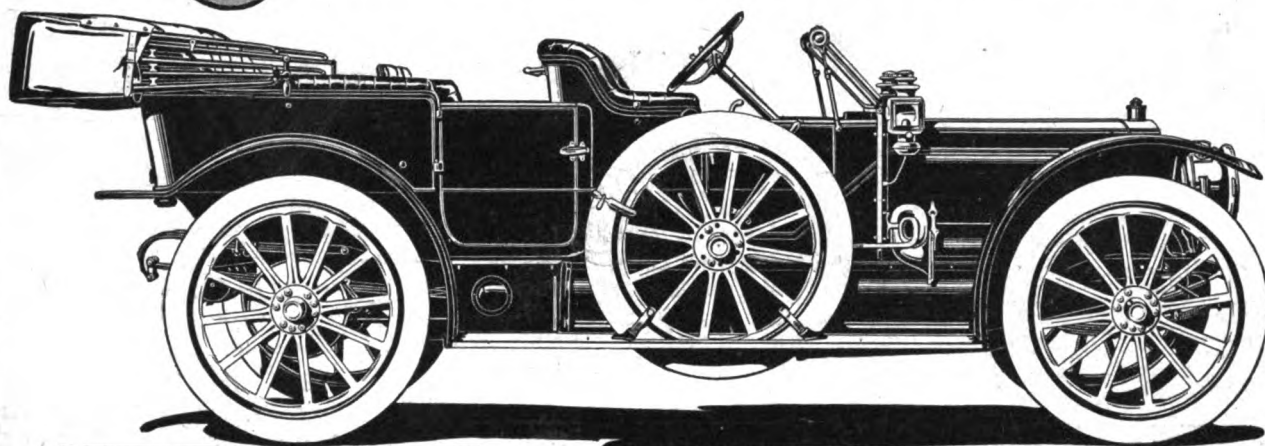
### To Straighten Bent Cotter Pins.

Cotter pins which have become bent through use or abuse may be returned to their normal condition quite easily by holding them upright on something solid and lightly tapping the ends of the "legs."



# Rambler

## 1911 Cars Now Ready



Rambler  
Sixty-five

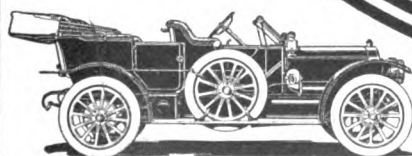
THE 1911 Rambler is now ready and orders are being taken for early deliveries of all styles. The line includes landaulets, coupes, limousines, town cars, roadsters, toy tonneaus and five and seven-passenger touring cars with detachable fore doors. Details and construction alike for all: two sizes, forty-five and thirty-four horsepower. Forty-inch wheels on all seven-passenger open cars, thirty-six-inch wheels on all others. Seven-eighths elliptic springs and shock absorbers produce gratifying comfort. The offset crank shaft and straight-line drive enable you to travel through sand and up grades on high gear as slowly as ten miles an hour. That there is no need to rush the hard pulls is one of the charms of driving a Rambler.

*You may have a copy of the special  
number of the Rambler Magazine  
if you make request immediately*

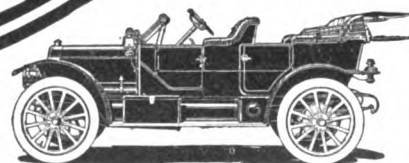
**The Thomas B. Jeffery Company**

Main Office and Factory, Kenosha, Wisconsin  
Branches: Boston, Chicago, Milwaukee, Cleveland, San Francisco

Rambler  
Sixty-four



Rambler  
Sixty-three



# **Reduction**

IN

# **Prices**

OF

# **MICHELIN**

# **TIRES**



Look for This Sign  
ON LEADING  
GARAGES

**Effective November 16, 1910**



FOR SALE  
ALL OVER  
THE WORLD

**The reduced cost of crude rubber, permits lower selling prices. We are glad to be FIRST "As Usual" to give you the benefit.**

**Get a New Price List**

**MICHELIN TIRE COMPANY**  
**MILLTOWN, N. J.**

## RECENT PATENTS.

969,512. Dry Cell. Amos N. Barron, Cleveland, and Walter G. Waitt, Fremont, Ohio, assignors to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed March 26, 1910. Serial No. 551,668.

1. A dry cell comprising a zinc cup having a bibulous lining, a carbon electrode and battery mix tightly packed in the lined cell around the electrode, the said bibulous lining extending across the top of the mix, a disk of material resting upon the said bibulous lining upon the top of the mix and surrounding the electrode, said disk comprising a top and bottom member of absorbent material, a corrugated member of absorbent material spacing them apart, and a seal in the cup on top of said disk.

969,893. Vaporizing Device. Abbot A. Low, Horseshoe, and Maurice J. Wohl and Harry Hertzberg, New York, N. Y., assignors to said Abbot A. Low. Filed June 16, 1908. Serial No. 438,787.

1. In an explosive engine, a vaporizing chamber, a vaporizing coil having a flat side positioned in said vaporizing chamber the plane of said flat side being inclined to the direction in which the fluid is injected means for injecting the fluid to be vaporized into said chamber and against the flat side of said coil, and means for heating said coil.

969,899. Protector for Automobiles, etc. Susan C. Partington, Buffalo, N. Y. Filed Jan. 18, 1909. Serial No. 472,837.

1. A protector for vehicles comprising a house having a doorway for the entrance and exit of a vehicle, a door pivoted at its lower end to the sill of the doorway to swing in a vertical plane, a cover movable over or away from the vehicle space, and means for causing said door to move said cover into and out of its operative position.

969,908. Pneumatic Tire Protector. Edwin Russel, Kansas City, Kan. Filed July 22, 1909. Serial No. 508,951.

1. A protector for tires, comprising, in combination, a series of shells substantially diamond shaped and having their longitudinal end portions of reduced thickness and having upraised corrugations centrally dividing said reduced thickness, said shells overlapping one another to the extent of said reduced portions, the overlapping portions constituting the longitudinal apexes of the diamond shaped shells, flexible means connecting the transverse ends of said shells to cause them to assume an arcuate curvature, and yoke means supplied at intervals to yoke the protector to a wheel.

969,929. Vehicle Rim. Martin L. Williams, South Bend, Ind. Filed Feb. 28, 1908. Serial No. 418,179.

1. In a vehicle wheel, the combination with a rim provided at one side with an annular outstanding flange, and at the opposite side with a plurality of spaced apart inturned lugs, a pair of endless tire retaining rings detachably mounted upon said rim, and confined against slipping off one side of the latter by said outstanding flange, and endless locking ring for preventing said detachable members from slipping off of the opposite side of said rim, said locking ring having a plurality of spaced apart outturned channel shaped flanges adapted to receive the inturned lugs of said rim, and means for preventing circumferential movement of said ring upon the rim.

969,930. Detachable Vehicle Rim. Martin L. Williams, South Bend, Ind. Filed Feb. 28, 1908. Serial No. 418,180.

1. In a vehicle wheel, the combination with an inner rim having an inclined bearing surface at one side thereof, a detachable outer rim supported at one side by said bearing surface, a wedge shaped locking ring having an inclined bearing surface supporting the other side of said outer rim, a downturned flange upon the outer edge of said locking ring, bayonet joint connections between the outer periphery of said inner rim and the opposed periphery of said locking ring comprising a plurality of spaced apart lugs upon the inner face of said locking ring, and co-operating recesses or slots upon the upper face of the stationary rim, said slots being open at one end to permit the entrance of said lugs, and means co-operating with the downturned flange of said locking ring to force the latter into position upon the inner rim.

969,941. Carburetter. Frederick John Cox, Kentish Town, London, England. Filed Nov. 29, 1907. Serial No. 404,306.

1. A carburetter consisting of a casing having an air inlet and a mixture outlet, an involute spiral surface within the casing, a jet from which a volatile liquid is discharged upon the said involute spiral surface, and means for rotating the spiral surface so as to cause the volatile liquid to gradually move toward the axis of the involute spiral surface substantially as described.

969,990. Speed Indicator for Motor Cars and Other Vehicles. Cuthbert Coates Smith, Twickenham, England. Filed April 2, 1910. Serial No. 552,999.

1. A speed indicator for motor cars and other vehicles, comprising a rotatably mounted body having numerals on its sides, a centrifugal governor device and means for operating it from the vehicle road wheel, a sleeve connected to the movable end of the governor and having a flange, cylindrical sectors arranged in parallel on the interior of the body and lying in the path of the flange on the governor sleeve and successively engageable thereby as the speed of the vehicle varies, whereby the indicator is intermittently rotated, substantially as described and for the purposes stated.

970,005. Demountable Tire. Valentine Wildner, Chicago, Ill. Filed Nov. 5, 1909. Serial No. 526,445.

1. The combination with a vehicle wheel and tire, of a supplemental rim to which the tire is attached split transversely to form ends which are movable to and from each other for expanding and contracting the rim on the wheel, a link connecting the ends of the rim and having a ring at one end, a cam operating in said ring to draw the ends of the rim together, a wall engaging one side of the ring to limit the throw of the parts in that direction, and a set-screw threaded in the rim and adapted to impinge against the other side of the ring, substantially as shown and for the purpose set forth.

970,034. Explosive Engine. Leef A. Frayer, Columbus, and William J. Miller, Springfield, Ohio, assignors, by mesne assignments, to The Kelly Motor Truck Company, Springfield, Ohio, a Corporation of Ohio. Filed Aug. 3, 1908. Serial No. 446,556.

1. In a hydrocarbon engine, the combination with a cylinder, of a jacket which

partially incloses said cylinder, an air conduit which communicates with said jacket at the top of the cylinder, said air jacket being closed with the exception of a few small openings at the bottom thereof, and a valve casing also surrounded by said air jacket, said air jacket having a number of openings formed in the wall thereof adjacent said valve casing.

970,126. Vehicle Wheel. Harry Scullin, St. Louis, Mo. Filed July 2, 1909. Serial No. 505,713.

A vehicle wheel composed essentially of rubber and differentially vulcanized from its tread to its hub.

970,136. Horn. Etienne Teste, Paris, France. Filed Dec. 2, 1908. Serial No. 465,661.

1. A horn, comprising a plurality of trumpets, a cylinder with which the trumpets are connected, a movably mounted distributor in the cylinder, an air forcing device connected with the cylinder, and means for intermittently operating the distributor from the air forcing device and simultaneously therewith admitting air from the said air forcing device to the cylinder.

970,297. Automobile Radiator. Charles G. Boeck, Jackson, Mich., assignor to Novelty Manufacturing Company, Jackson, Mich., assignor to Novelty Manufacturing Company, Jackson, Mich., a Corporation of Michigan. Filed Jan. 7, 1910. Serial No. 536,923.

1. A radiator comprising an assemblage of prismatic tubular air-flue sections having open rectangular ends, the same being placed immediately adjacent one another and pointed at their ends, the lateral faces of said elements being formed immediately of their flat-sided end portions with longitudinal recesses, and the opposed faces of adjacent elements having their said recesses staggered for intercommunication, thereby providing intervening sealed water-passages extending transversely of the air-flues.

970,328. Gearing. William O. Hancock, Orleans, Ind. Filed Nov. 30, 1909. Serial No. 530,699.

1. In a device of the kind described, a differential train including a driving gear and a driven gear, and means to drive either or both of said gears.

970,329. Tire Inflator. William R. Heck, Palmer, Neb., assignor of one-half to Adam F. Heck, Palmer, Neb. Filed March 28, 1910. Serial No. 552,030.

1. An air pump comprising a cylinder, a plunger working therein, a plunger stem comprising telescoping and slidably connected sections, one of said sections having a notch, a pivoted dog carried by the other section, and adapted to engage the notch for locking the sections together, a releasing device for the dog, governor controlled means for operating the releasing device, and means connected to the plunger stem for operating the pump.

970,390. Shock Absorber for Automobiles. Cristian Alfred Petersen, Laconia, N. H. Filed Nov. 22, 1909. Serial No. 529,457.

1. A shock absorber comprising a casing, a piston therein provided on opposite sides with cam-faced abutments arranged in break-joint order, two-throw cams carried by the casing and engaging the abutments, a shaft loosely keyed to the piston, means for rotating the shaft whereby to cause the coaction between the abutments and

the cams to impart a reciprocatory movement to the piston longitudinally of the shaft, and means for permitting passage of the fluid under gradually increasing resistance from one side to the other of the piston.

970,429. Carburetter for Internal Combustion Engines. Fitzwilliam Richard Davis, Kew Gardens, England. Filed July 15, 1909. Serial No. 507,818.

1. The combination of a heated mixing chamber provided with a fuel inlet, an eduction pipe and a hollow projecting valve casing communicating with said chamber and provided with air inlets intermediate of its ends, a rotatable sliding valve normally located in the outer end of said casing beyond said air inlets, a rotatably mounted sleeve passing through said casing and chamber, a reciprocating rod extending through said sleeve, a longitudinal slot in said sleeve, a pin operating in said slot and connected to said valve and rod, a governor for said rod, means for rotating said sleeve, throttling means controlling said fuel inlet and eduction pipe, and means co-operating between said throttling means and reciprocating rod, whereby the flow of fuel and air to the mixing chamber and the flow of gaseous mixture from the mixing chamber is controlled by the movement of said rod, substantially as described.

971,038. Carburetter. Edward J. Gulick, Mishawaka, Ind., assignor to The Simplex Motor Car Company, Mishawaka, Ind., a Corporation of Indiana. Filed May 4, 1907. Serial No. 371,840.

1. In a carburetter, the combination of a casing having branches for the intake of air

and for connection to the suction side of an engine, of a carburetting chamber situated between said branches, an annular choke tube within the walls of said carburetting chamber and having a beveled operating surface thereon, a spray plug in said carburetting chamber, said spray plug provided with a conical annular passage terminating opposite the beveled surface of the annular choke tube, a needle valve seated at the apex of said annular passage, and connected to said choke tube whereby the suction of said engine moves said choke tube and needle-valve relative to said spray plug to increase or decrease the amount of air and oil delivered to said engine, and means for returning said choke tube and needle-valve to their seated positions, substantially as described.

971,075. Draft Attachment for Motor Vehicles. Otto E. Ritzmann, Detroit, Mich., assignor to Peerless Auto Pull Co., Detroit, Mich., a Corporation of Michigan. Filed April 29, 1910. Serial No. 558,327.

1. The combination with the hub and drive wheel of a motor vehicle, of a plurality of sector plates embracing said hub and co-operating therewith to form a segmental winding drum, means for attaching the inner ends of the sector plates to the wheel, and means for clamping the outer ends of said plates to the hub.

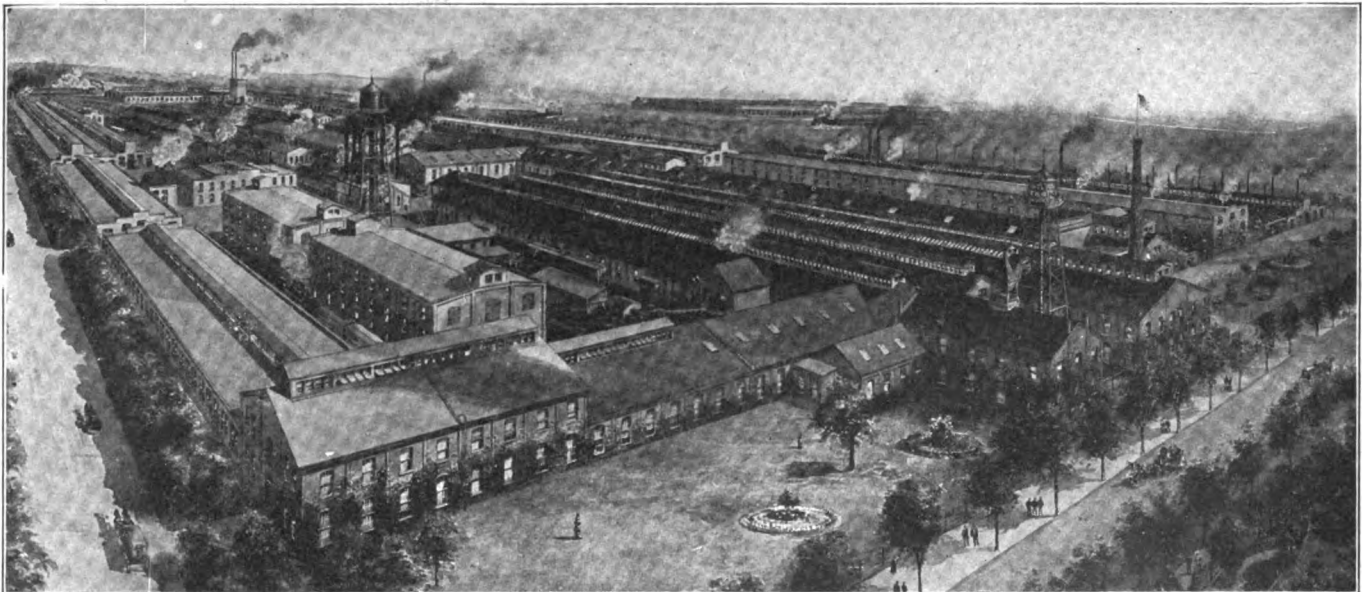
971,100. Cushioned Vehicle Wheel. Maynard H. Aldridge, Plattsburg, N. Y. Filed Jan. 13, 1910. Serial No. 537,869.

1. In a wheel of the character described, a hub, an inner stationary rim, a series of bracing spokes to secure said rim to the hub, guide rings secured to the inner sides

of said spokes, said rings having formed therein oppositely disposed guide grooves, a series of cushion spokes slidably mounted in said inner stationary rim, an outer rim formed of a series of independent segmental sections each of which has a sliding interlocking engagement with the end of the next adjacent section, a tire arranged around said sectional rim, a pneumatic cushion arranged around said hub, a series of segmental cushion seats secured to the inner ends of said cushion spokes, guide lugs formed on the opposite edges of said seats and adapted to engage the grooves in said guide rings, pads arranged on the inner sides of said cushion seats and adapted to engage said pneumatic cushion whereby the cushion spokes are yieldingly held in position on the wheel.

971,246. Protector for Pneumatic Tires. Ole A. Britson, Brookings, S. D. Filed April 11, 1907. Serial No. 367,637.

A pneumatic tire having an outer protecting covering composed of layers of material, annular rows of rivets connecting the tread portion of the layers and arranged in staggered relation, said rivets having outer enlarged flattened heads disposed out of transverse alinement and on lines between each other, an annular series of rivets connecting the layers at each side of the tire and between the tread portion of the tire and rim of the wheel, said rivets having outer rounded heads of smaller diameter than the heads of the tread rivets, said round headed rivets being arranged in alined longitudinal and transverse rows in close relation to each other so as to form clusters of projections to protect the sides of the tire and layers from wear.



## Atlas Engine Works Plant

ANNUAL CAPACITY—  
20000 AUTO MOTORS

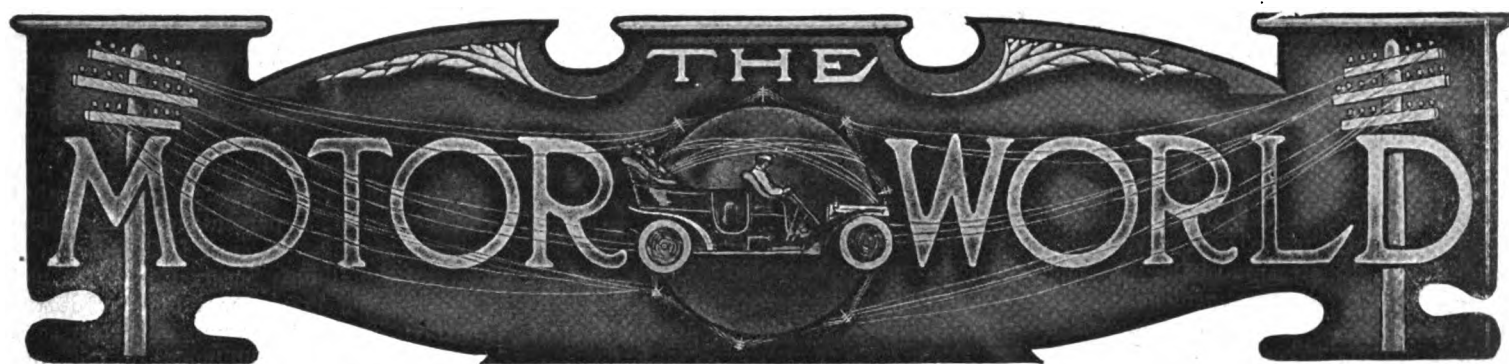
THE HYDRAULIC PRESSED STEEL CO., Pressed Steel Frames.

DETROIT CARRIAGE CO., Automobile Bodies.

ATLAS ENGINE WORKS, Automobile Motors.

ROGER B. McMULLEN, General Sales Agent, 115 Adams Street, Chicago, Ill.





### TO FILE SUPPLEMENTARY BRIEFS

**Court Gives Attorneys in Selden Appeal Cases Additional Opportunity—Ford's Final Request Causes a Flutter.**

Despite the fact that all of the attorneys involved previously had filed briefs of great length and that they talked during four days of last week, when the arguments in what are known as the Ford and Panhard appeals from the decision of the lower court sustaining the Selden patent were concluded on Friday last, 25th ult., the United States Court of Appeals for the Second Circuit, granted counsel ten days in which to file supplementary briefs.

The four days' argument necessarily was chiefly a review of the testimony, the chief endeavor on one side being to convince the court that the Selden engine was useless or one that never had been adequately worked, while the other side naturally held to the contrary view. The appellants also gently pictured Selden as a patent attorney who instead of insisting on his rights when the first automobiles made their appearance had lain in ambush, so to speak, until the industry had grown up, when he greedily pounced upon it. George B. Selden himself attended the last day's proceedings and heard himself depicted in this guise.

Perhaps the most excitement in the case occurred at the conclusion of the hearing, when the Ford counsel with delicious audacity asked the court to suspend the injunction against John Wanamaker—who is bracketed with the Ford Motor Co. in the litigation—in order that he (Wanamaker) might purchase 40 Ford delivery wagons. The request instantly caused a hubbub and brought all of the attorneys and most of the spectators to their feet. They crowded inside the rail close to the bench, several lawyers talking at once, the Selden representatives of course vigorously opposing the motion. When quiet was obtained the court denied the Ford request.

Pending the filing of the supplementary

briefs, the trunkloads of books and papers, the various charts and working models and the other and original exhibits—the latter stored at No. 45 Barclay street, New York—all of which had been employed to assist the argument, were ordered retained in the custody of the court.

### Stewart Licensed Dealers' New Secretary.

Charles A. Stewart has been elected general manager of the Licensed Automobile Dealers of New York City to succeed James M. Carples, who resigned the office to assume the management of the Daimler Import Co. Previously, Stewart was assistant educational director of the West Side Y. M. C. A. in New York in which capacity he had much to do with the automobile school which for several years has been successfully conducted by that organization.

### Jacobson-Brandow Terminates Agency.

The contract between the Pettingill-Andrews Co. of Boston and the Jacobson-Brandow Co., of Pittsfield, Mass., which gave to the former the exclusive sales agency for the Jacobson-Brandow ignition specialties, has been terminated and the Pittsfield company is rearranging its system of marketing its product. In the West it will be represented by H. C. Mills and W. D. Rockwell, who will make their headquarters in Detroit.

### To Build Gramm Trucks in Canada.

The Canadian Gramm Motor Truck Co. has been organized in Walkerville, Ont., and as its title indicates it will reproduce the American Gramm trucks on the other side of the border. Its officers are: H. W. Acason, president and general manager; F. H. Galusha, vice-president and superintendent, and J. K. Webster, secretary and treasurer.

### Two Wholesalers Depart for Paris Show.

Carl Kaufman, general manager of the Motor Car Equipment Co., and J. L. Gibney, of J. L. Gibney & Bro., of New York, sailed yesterday on the Mauretania to attend the Paris show. They went with eyes open for new things in accessories.

### HYDRAULIC TRANSMISSION COMING

**Bethlehem Steel Co. Developing Them Under Manly Patent—New West Virginia Company Also Secures License.**

That the Bethlehem Steel Co., Charles M. Schwab's giant property in Pennsylvania, has been licensed to manufacture the Manly drive and is developing that hydraulic transmission in sizes for application to trucks and taxicabs, became known only this week, when a Motor World's inquiry of the Manly Drive Co. concerning another matter served to disclose the more important news. The big steel company's license is all-inclusive and permits it to make the Manly transmission in all forms and for all purposes. In addition to the larger sizes for truck use, the Bethlehem people are working on transmissions in 15 and 25 horsepower sizes, and in fact already have produced some of the latter, but for application to battleship turrets and not automobiles. The 15 horsepower size will be designed for taxicab purposes, but probably it will not be ready until after the truck transmission has been perfected.

The American-Latrance Fire Engine Co., of Elmira, N. Y., already has produced a truck employing the Manly drive, one of them having been exhibited on the streets during the last New York show. A much improved vehicle is said will be disclosed during the forthcoming show season.

The promise of a pleasure car using the liquid drive is somewhat remote. The Remington Standard Motor Co., of Charleston, W. Va., which recently was incorporated with \$1,000,000 capital stock, and of which Emerson Brooks, the well known New Yorker, is first vice-president and general manager, has been licensed by the Manly company to use the transmission for both pleasure cars and trucks, but as the manufacture of the latter is the immediate purpose of the Remington Standard company, when if ever, the pleasure

## THE MOTOR WORLD

car will make its appearance is merely a matter for speculation.

The Manly drive is an application of the hydraulic principle. The driving end of the system consists of a multiple cylinder pump, which forces oil through a controlling valve to the one or more motor units through which the power is applied. The motors are similar in general construction to the pump, and derive their motion from the pressure of the oil. Such is the nature of the arrangement that the entire range of forward and reverse speeds and the braking effect may be secured by the manipulation of a single lever.

### Fatal Accident to an E-M-F Manager.

David Hunt, Jr., manager of manufacturing of the E-M-F Co. of Detroit, was instantly killed late Saturday evening last, 26th ult., near Yale, Mich., by the overturning of a car in which he was a passenger. He was one of a hunting party contained in two cars and was riding on the footboard while passing over a treacherously slippery stretch of clay road when the car skidded into the ditch; Hunt apparently jumped but fell backward and the car overturning fell upon him, breaking his neck. Charles Adams, superintendent of the E-M-F company, who drove the car, escaped with a wrenched back. Hunt had been a member of the E-M-F staff since last May, when he went to Detroit from Cleveland where he had been manager of a machinery and machine tool company. He was an expert in those wares. He was 35 years of age and a native of Boston, to which city his remains were taken for burial. He leaves a widow and daughter.

### Court Dismisses a Bankruptcy Petition.

Judge Hough, sitting in the United States Circuit Court in New York, has dismissed the petition in bankruptcy filed on September 29th last against the Carpenter-Kerlin Gear & Machine Co., makers of automobile gears at 77 White street, New York. The court's action was taken because the petitioning creditors failed to appear to offer evidence in support of their allegations of bankruptcy.

### Fiat's President Visits American Factories.

Chevalier G. Agnelli, president of the Italian Fiat company, accompanied by his son, E. Agnelli, and I. Marian, superintendent of the Fiat works, last month made a tour of a number of American factories under the guidance of E. Rand Hollander, of New York, who is a part of the American Fiat establishment. He sailed for home on November 29th.

### Winton Opens Branch in Kansas City.

The Winton Motor Carriage Co. has opened a branch in Kansas City, Mo., at 3328-30 Main street. Its manager is George Arbuckle, who has been in the Winton service for many years.

## INFRINGEMENT SAVES PATENT

### Peculiar Decision of British Court that Renders Mercedes Patents Valid—Illegal Use Proof of Manufacture.

Because they have been extensively infringed, paradoxical though it may appear, several patents owned by the German Mercedes company have been upheld in England, the establishment of their validity resulting from an attempt of Fiat Motors, Ltd., to have them invalidated under the provisions of the Patents and Design act of 1907. In consequence of this signal triumph of logic as viewed through the medium of the legal mind the owners of the patents now may proceed against the infringers.

By the terms of the law in question if "the patented article or process is manufactured or carried on exclusively or mainly outside the United Kingdom," the patent is rendered void. The Fiat people applied for the revocation of the entire group of Mercedes patents, the application being refused by the Comptroller's court mainly on the strength of the court's opinion that the manufacture could not be considered as carried on mainly abroad in view of the extent to which infringing products were built locally; in other words, it mattered not at all if the patentee had not worked the patents, so long as others did so. The case was appealed and in due season came before the High Court.

In the opinion of Mr. Justice Parker, presiding, the sub-section of the act was not concerned with what the patentee had or had not done, nor with the question of whether what had been done had been done with or without his consent. Nor should the comptroller inquire whether the manufacture at home had been carried on in derogation of the patentee's rights. The appeal was, therefore, dismissed and the patents remain in force.

The rights in question consist of seven British patents relating to the gridiron or grate method of change gear actuation, honeycomb radiators, water-cooled brakes, fan fly wheels and dished axles. On several different occasions threats that they might be enforced have caused flutters in the British industry where, as elsewhere, the principles involved are widely used.

### Chicago Dealers Sue Delinquent Builders.

Failure to fulfil the terms of a contract made between the Chicago Motor Car Co. and J. C. Robison & Co., builders and contractors, resulted last week in a jury verdict of \$36,000 in favor of the automobile concern. It appears from the evidence that on May 5, 1909, the Chicago Motor Car Co., the Packard agents in that city, entered into a contract with J. C. Robison &

Co. for the erection of a new building at Michigan avenue and 24th street, Chicago, Ill. On account of the failure of the contracting firm to prosecute the work to the satisfaction of the architect and the automobile dealers, the contract was canceled in the latter part of September, 1909, and the building was completed by another contractor on a percentage basis. The motor company then sued J. C. Robison & Co. and the Illinois Surety Co., which had furnished the bond for fulfilment of the contract, for the amount of extra cost, caused by the non-fulfilment of the contract specifications, and a Chicago jury sitting under Judge Dicker awarded, after a six weeks' trial, the amount of \$36,000 to the plaintiff, the length of the trial making it almost a celebrated case.

### Factory that Operated at a Loss.

That automobile manufacture is not always the short cut to ready money once more was exemplified by a report of T. J. Delahunt, receiver for the Rider-Lewis Motor Car Co., Anderson, Ind., which was filed a few days since in the Superior Court of that state. The report shows that the company had been operated at a loss from its beginning, having manufactured 250 cars at a cost of \$289,967 and sold them for \$240,876, a loss of \$49,090.

### Layman Leaves Orson Car to Others.

H. B. Layson, president and general manager of the Brightwood Motor Mfg. Co., of Springfield, Mass., has resigned those offices. The company makes the Orson car, which is said to represent the ideas of a number of New York moneyed men who hold stock in the company. W. K. Vanderbilt, Jr., and James Stillman are mentioned as being among the number.

### Two Branches Established in Fargo.

Fargo, N. D., has become a distributing point for at least two of Detroit's big manufacturers, the Ford Motor Co. and the Cadillac Motor Car Co., both of which have established branches in that city. The Ford establishment is in charge of C. F. Reynolds and the Cadillac branch in charge of H. J. Wolfer.

### To Produce Gas Engines in St. Louis.

The Lindell Motor Parts Mfg. Co., which is erecting a building at 3444 Lindell avenue, St. Louis, Mo., purposes producing gas engines, among other things. The structure is expected to be completed by December 1st.

### Hartford Jobbers to Erect Big Warehouse.

The Post & Lester Co., of Hartford, Conn., is making ready to erect a four-story brick warehouse and office building on Allyn street in that city, to better care for its extensive jobbing trade; the structure will measure 100 x 40 feet.

**EXCELSIOR IN CREDITORS' HANDS**

**Big Chicago Company, Cramped by Lack of Ready Cash, Transfers Control—Engine Making Proved Embarrassing.**

Not because it did not do enough business, but because it did too much, the Excelsior Supply Co., of Chicago, and with it the Excelsior Motor & Mfg. Co., which helped drain the supply company's resources, literally are in the hands of their creditors. The fact that the companies had over-reached themselves and had become embarrassed by lack of ready cash has been a matter of trade knowledge for several months, but until last week it was hoped that efforts that were making to bridge the gap would prove successful; then, however, it became apparent that the best interests of all concerned would be served by turning over the business to the creditors, who hastily were called into conference.

The investigation of the creditors' committee showed that during the past year the Excelsior Supply Co. had done a business of more than \$3,500,000, and that while the assets exceed the liabilities of \$1,000,000 by fully \$400,000, careful handling would be necessary to conserve and make the most of the situation. The offer of the Excelsior principals to turn over the control and direction of the business to the creditors was therefore accepted, the officers of the company placing their resignations at the disposal of the committee.

"It is evident that this case is a case for extension," is the statement subscribed to by a group of the larger creditors, whose claims aggregate \$650,000, "and we recommend to all creditors to join with us in accepting the Excelsior Supply Co.'s notes for the amount now due, with interest at 6 per cent. per annum, payable January 1, 1912. With this extension there would seem to be no occasion for alarm or concern."

The creditors' committee, which, according to the plan submitted, is to take the entire management and control, consists of: John F. Alvord, of the Standard Co., Excelsior Needle Co., and National Needle Co.; J. E. Maass, Corn Exchange National Bank of Chicago; G. E. Benson, National Tube Co.; F. E. Semal, Morgan & Wright, G & J Tire Co., Hartford Rubber Works Co. and Continental Caoutchouc Co.; F. L. Watters, Chicago Handle Bar Co.; C. C. Boynton, A. R. Mosler & Co.; W. E. Diehl, Corbin Screw Corporation.

The original business of the Excelsior Supply Co. was the sale of sewing machine supplies—not the machines themselves—which attained huge proportions; to it were successively added the manufacture of bicycles and motorcycles and the jobbing of

bicycle and automobile accessories, and in each respective field the company has been a factor to be reckoned with at all times. Last year, under the style the Excelsior Motor & Mfg. Co., it took up the manufacture of automobile engines, which involved such heavy outlays of cash and such large obligations that the other and firmly established and flourishing departments felt the drain and consequently were crippled.

**Stimulating Effects of the West.**

"Go West and be stimulated" may be said to constitute the advice to the faint-hearted and the skeptical given by all those resident east of the Mississippi who nowadays visit the great country that lies on the other shore. Automobile opinion radiates in all directions, they report with an accord that leaves no room for question. F. B. Stearns, head of the Cleveland company bearing his name; Windsor T. White, of the White Co., and J. I. Handley, vice-president of the United States Motor Co., are three of the big men of the trade who most recently have made "swings" around the West and who in substance join in giving the advice quoted. Crops are bountiful, and the farmers have money which they are anxious to spend and are spending in large wads for motor cars. Everyone and everything appears prosperous and no one is more prosperous or fuller of good cheer than the people engaged in the automobile business. Pessimism is unknown in the West, they all say.

**Franklin Partnership Becomes Corporation.**

The Franklin Automobile Co., of Syracuse, N. Y., which has been marketing the products of the H. H. Franklin Manufacturing Co., and which has existed as a co-partnership, has been incorporated, with authorized capitalization of \$400,000. The new corporation will take over all the business conducted by the co-partnership, which consisted of the Franklin branches, maintained in New York, Boston, Chicago, San Francisco, St. Louis, Cincinnati, Cleveland, Pittsburg, Buffalo, Rochester, Albany and other places. The incorporated company probably will be made exclusive distributors of Franklin automobiles. The principal stockholder is the H. H. Franklin Manufacturing Co. The members of the co-partnership were Herbert H. Franklin, John Wilkinson and Giles H. Stilwell, who with Frank A. Barton and Herbert H. Hess have become the directors of the corporation into which it has been transformed.

**Mead Begins Making Engines in Dayton.**

The Mead Engine Co. has commenced the manufacture of gasoline motors in Dayton, O., in temporary quarters on Second street. Later a two-story brick plant, 300 x 200 feet, for which plans already have been executed, will be erected on Mound street.

**STORROW HEADS GENERAL MOTORS**

**Eastern Banker Assumes Presidency but Will Step Down Later—Four Detroit Men are Made Directors.**

For the time being, James J. Storrow, of Boston, Mass., is the new president of the General Motors Co. He was chosen to fill the office at a meeting of the new board of directors held in New York on November 23d. Storrow is of the banking house of Lee, Higginson & Co., and was the man most active in arranging the details of the \$15,000,000 loan which Wall Street interests advanced to the General Motors Co. It is understood, however, that his election to the presidency of the company was merely a matter of expediency and that he will step down when the proper person is found.

At the same meeting W. C. Durant was re-elected vice-president and C. R. Hathaway secretary and treasurer. W. J. Mead, of the Olds Motor Works, also was made a vice-president. Both Hathaway and Mead were among those who were displaced as directors on the 15th ult. to make room for Wall Street men. The directorate was finally completed at last week's meeting, when four "dummies" who had been named on the 15th ult. retired from the board in favor of an equal number of Detroit men who previously had been selected by Messrs. Storrow and Albert Strauss, the latter the Seligman's representative, at a conference in that city. The Detroiters who all are well known in commercial and banking circles in Michigan, are as follows: Emory W. Clark, president of the Michigan Bankers' Association; M. J. Murphy, president of the Murphy Chair Co.; Thomas Neal, secretary of the Acme White Lead & Color Works, and Andrew H. Green, Jr., manager of the Solvay Process Co. Messrs. Clark, Murphy and Neal are directors in several Detroit banks, among them the First National, which has been disbursing the first instalment of the big loan that was made available. These gentlemen, with the following, constitute the new board: James N. Wallace, president of the Central Trust Co.; James J. Storrow, of Lee, Higginson & Co.; Albert Strauss, of J. & W. Seligman & Co.; Anthony N. Brady, W. C. Durant, N. L. Tilney and J. K. McClement, the latter of whom was in charge of the expert accounting involved in the huge transaction.

It is understood that the reorganization of General Motors' having been completed, its headquarters shortly will be removed from New York to Detroit, where most of its industrial interests are located. Meanwhile, however, W. H. Little, factory manager of the Buick Motor Co., has been transferred from Flint, Mich., to Vice-President Durant's office in New York.

## THE WEEK'S INCORPORATIONS.

Detroit, Mich.—Detroit Motor Truck Co., under Michigan laws, with \$5,000 capital.

Hartford, Conn.—Hartford Tire & Auto Repair Co., under Connecticut laws, with \$20,000 capital; to do general repair business.

Mobile, Ala.—Bienville Automobile & Garage Co., under Alabama laws, with \$2,000 capital; to operate a garage and livery service.

Cuero, Texas—Overland Garage Co., under Texas laws, with \$5,000 capital; to operate a garage. Corporators—E. C. Ivey, J. B. Young, E. E. Joseph.

Los Angeles, Cal.—National Motor Car Co., under California laws, with \$25,000 capital. Corporators—Earle Y. Boothe, A. M. Brown, J. D. Scouler.

Decatur, Ill.—Decatur Automobile Association, under Illinois laws, without capital. Corporators—William McGinley, C. A. Walmsley, J. M. Brownback.

Fairfield, Ia.—The Fairfield Co., under Iowa laws, with \$10,000 capital; to deal in automobiles. Corporators—Richard Fisher, George L. Dana, Ed. Gotfelty, H. Earl.

Wilmington, Del.—Courtney Tire & Rubber Co., under Delaware laws, with \$1,000,000 capital. Corporators—N. Akers, W. J. Maloney, M. C. Taylor, all of Wilmington, Del.

Bowling Green, Ohio—Bowling Green Garage Co., under Ohio laws, with \$10,000 capital; to maintain a garage and renting service. Corporators—A. E. Royer and others.

Pittsburg, Pa.—Dual-Impulse Motors Co., under Delaware laws, with \$100,000 capital. Corporators—F. C. Tygard, Pittsburg, and W. A. Loegler and C. H. Abbott, of Mt. Olivet, Pa.

Little Rock, Ark.—Tysinger Auto Supply Co., under Arkansas laws, with \$10,000 capital; to deal in supplies and accessories. Corporators—H. Tysinger, J. R. Vinson, J. H. Stanley.

Columbus, Ohio—Columbus Taxicab & Service Co., under Ohio laws, with \$25,000 capital; to operate a taxicab service. Corporators—J. G. Orr, C. M. Peters, B. D. Huggins, E. W. Huggins.

Chicago, Ill.—Sorter-Conway Co., under Illinois laws, with \$5,000 capital; to build automobiles, aeroplanes, vehicles and machinery. Corporators—P. Steele, P. F. O'Malley, Abe Lapine.

Chicago, Ill.—Townesley-Comstock Co., under Illinois laws, with \$25,000 capital; to manufacture automobiles. Corporators—L. E. Townesley, S. E. Comstock, E. F. Comstock, all of Chicago.

Philadelphia, Pa.—Progressive Motor Sales Co., under Delaware laws, with \$100,000 capital. Corporators—F. R. Hansell,

Philadelphia, and G. H. B. Martin and S. C. Seymour, Camden, N. J.

New Albany, Ind.—Brown Automobile & Electric Co., under Indiana laws, with \$3,000 capital; to deal in automobile accessories and supplies. Corporators—H. W. Brown, Otto C. Thompson, H. P. Brown.

Buffalo, N. Y.—Buffalo Motor Sales Co., under New York laws, with \$10,000 capital, fully paid in, to deal in automobiles. Corporators—Leon J. McCullough, John J. McCullough, Millard F. Tallmage.

Bridgeport, Conn.—Elm Auto Co., under Connecticut laws, with \$25,000 capital; to buy, sell and rent automobiles. Corporators—Thomas Morrissey, John Lewis Green, Willis S. Buckley, all of Bridgeport.

Buffalo, N. Y.—Frey Auto Supply Co., under New York laws, with \$25,000 capital; to deal in automobiles and accessories and to operate a garage. Corporators—J. W. Frey, A. Karl, J. A. Donaldson, all of Buffalo.

Lincoln, Neb.—Field Automobile Mfg. Co., under Nebraska laws, with \$200,000 capital; to manufacture and deal in motor vehicles. Corporators—W. T. Field, Charles E. Gibbs, Frank Farrell, P. E. Zimmer.

St. Louis, Mo.—Todd Automobile Supply Co., under Missouri laws, with \$30,000 capital; to manufacture and deal in automobiles and other motor vehicles. Corporators—J. V. Todd, Charles Peters, E. F. Gree.

Cleveland, Ohio—Auto Transit Co., under Ohio laws, with \$5,000 capital; to establish a renting and livery business. Corporators—Charlotte E. Griffin, Harry L. Byerly, Nettie M. Clevenger, A. G. Crosser, Clyde M. White.

Chicago, Ill.—French Auto Top & Supply Co., under Illinois laws, with \$10,000 capital; to manufacture automobile tops, shields and carriage covers. Corporators—E. C. Watson, Charles H. Pegler, James H. Christopher.

Buffalo, N. Y.—Victor Motor Truck Co., under New York laws, with \$250,000 capital; to manufacture and deal in automobiles, bicycles and accessories. Corporators—O. L. Neal, H. B. Clark, B. E. Neal, all of Buffalo.

Chicago, Ill.—Henry Motor Car Sales Co., under Illinois laws, with \$25,000 capital; to manufacture and deal in automobiles and accessories. Corporators—A. E. DeMange, C. F. Latimer, J. J. Maloney, of Bloomington, Ill.

Buffalo, N. Y.—Battery Emporiums, Inc., under New York laws, with \$50,000 capital; to deal in automobiles, parts and electrical devices for same. Corporators—T. P. Mainhard, F. A. Johnson, G. Rolston, all of Buffalo, N. Y.

Hudson, N. Y.—Hudson City Garage, Automobile & Motor Co., under New York

laws, with \$1,000 capital; to deal in automobiles. Corporators—Edward H. Lisk, Bertha E. Lisk, of Troy, N. Y., and Frank Powers, of Hudson.

New Brunswick, N. J.—Motor Sales Co. of New Jersey, under New Jersey laws, with \$25,000 capital; to deal in automobiles and supplies. Corporators—A. Greenbaum, A. Conquest, G. F. Reynolds, W. S. Higgins, of Perth Amboy.

Grand Rapids, Mich.—Lewis Supply Co., under Michigan laws, with \$5,000 capital; to manufacture automobile parts and metal specialties. Corporators—James M. Hynas, Richard, Rynier and Cornelius Shoemaker, and Clarence E. Lewis.

Windham, Conn.—E. P. Cheslow Co., under Connecticut laws, with \$20,000 capital; to buy and sell and rent automobiles and other vehicles. Corporators—Ernest P. Cheslow, Ernest P. Cheslow, Jr., Carrie O. Cheslow, Laura Cheslow.

St. Louis, Mo.—Woods Electric Vehicle Co., under Missouri laws, with \$2,500 capital; to maintain a garage for electric vehicles. Corporators—L. E. Burr, Thomas Clements, A. B. Schaffner, A. L. Schwartz, Nathan Frank, D. W. Noyles.

Chicago, Ill.—Columbia Garage Co., under Illinois laws, with \$5,000 capital; to operate a garage and renting service, and to deal in supplies, automobiles and accessories. Corporators—John R. Anderson, F. H. Anderson, John R. Anderson, Jr.

New York City, N. Y.—Motors, Engineering & Sales Co., under New York laws, with \$200,000 capital; to manufacture and deal in motor vehicles, engines, etc. Corporators—C. Griswold, W. S. Jewell, J. L. Breeze, Jr., all of New York City.

Indianapolis, Ind.—Willys-Overland Co. of Ohio, with total capital of \$6,000,000, admitted to do business in Indiana, with a capital of \$1,000,000; to manufacture and sell automobiles and parts. Corporators—J. N. Willys, I. Kinsey, W. H. Brown.

Newark, N. J.—Mackey Motor Co., under New Jersey laws, with \$300,000 capital; to manufacture automobiles, motor boats, motors and engines. Corporators—John C. Mackey, William G. Jerolemon, both of Newark, N. J., and Robert M. Bateman, of East Orange, N. J.

Jersey City, N. J.—Alden-Sampson Mfg. Co., under New Jersey laws, with \$2,500,000 capital; to manufacture automobiles, motors, cars, carriages, wagons, flying machines, etc. Corporators—K. K. McLaren Jersey City; H. E. Tobey, New York City; J. A. Dailey, Ossining, N. Y.; L. R. Jillson, New York City; W. R. Watson, Brooklyn, N. Y.

## Increases of Capital.

St. Louis, Mo.—Haynes Automobile Co. from \$5,000 to \$10,000.

Cleveland, Ohio—Roy Bains Auto Livery Co. from \$10,000 to \$25,000.



## IN THE RETAIL WORLD.

John D. and E. E. Coutlet, of Kansas City, Mo., have opened a repair shop and garage in the Cement building, Wichita, Kan.

The Wallace Automobile Co., Omaha, (Neb.) agent for the Stearns line, has moved from 24th street to 2203 Farnam street.

Frank B. Meade is building a big garage at 1917 E. 13th street, Cleveland, Ohio. The structure will be 60 x 160 feet, one story high, and will cost \$9,000.

Ground has been broken for a new garage on South Maple avenue, Greensburg, Pa. William H. and Maurice L. Rose will occupy it when it is completed.

At a cost of \$18,000 Clarkson Lindley is building a garage at 1518-1520 Hennepin avenue, Minneapolis, Minn. The building will be 44 x 100 feet with hard wood finish.

A. H. Lovelace has taken over the old Cadillac Garage, at 707 Front avenue, Seattle, Wash., and will continue the business in his own name. He will handle Winton cars.

Claire Kirk, A. Peterson, E. A. R. Lloyd and several other citizens of Mason City, Ia., have organized the North Iowa Motor Sales Co., and purchased the garage and business of J. L. Meredith, of that city.

In seeking judgment on a claim for \$550, George J. Magly has asked that a receiver be appointed for the Iroquois Garage Co., of Columbus, Ohio. Fred Luchtenberg is president and C. S. Beathard is secretary of the company.

Sanderson & Burghardt, who handle Firestone-Columbus cars, have leased the store formerly occupied by the Ford Motor Co., at 727 Main street, Buffalo, N. Y., while Edward Seeber has leased 704-706 Main street. Seeber sells Pierce-Arrows.

Operating under the name the Ford Motor Sales Co., a new concern this week will open its doors to the public of Rockford, Ill. W. Fletcher Barnes and his son, William Barnes, the men concerned in the enterprise, have the agency for the Ford car.

Under the style the Plymouth Motor Car Co., a new concern has been organized in Wilkes-Barre, Pa., to conduct a garage and repair shop. The garage proper faces Hanover street, while the salesrooms are a part of the same property facing Main street.

Frederick Conrad, of 1221 North Caroline street, Baltimore, Md., has purchased the property at 1516-1524 North Regester street for the sum of \$14,000, and will erect thereon a modern garage. The building will be of concrete and two stories in height.

J. B. Turner, of Sarasota, Fla., is building a garage and repair shop on Main street, under the incorporated name Sarasota Garage & Car Co. C. V. Swain, for

several years connected with the Interstate factory, will be manager of the establishment.

The Reo Pacific Co. is the style of a new concern which just has opened up in the St. James Hotel building on Van Ness avenue, San Francisco, Cal. As the name indicates, Reo cars will be handled by the company, the manager of which is Norman De Vaux.

The Centaur Motor Co. of Illinois, with headquarters at 1725 Michigan avenue, Chicago, has given up the agency for Oakland cars, and henceforth will act as distributor for the Abbott-Detroit line exclusively. A. M. Robbins is the president of the concern.

John T. Matchett and Edward McFarlan, of Brooklyn, N. Y., have gone into partnership to handle Marion cars in Brooklyn and Queens county, N. Y. For the purpose they have leased the building at 1289 Bedford avenue, formerly occupied by the Standard Auto Sales Co.

The Majestic Garage, at 18-20 Halsey street, Brooklyn, N. Y., has found its 26,000 feet of floor space inadequate and is building an addition three stories high and one hundred feet front on Bedford avenue. Bishop, McCormick & Bishop are the owners of the prosperous garage.

The Oriental Rubber Co., of 1140 Bedford avenue, Brooklyn, N. Y., has been appointed representative of the G & J Tire Co., Indianapolis, Ind., for Kings county, N. Y. Besides dealing in rubber tires, the Oriental company maintains one of the most complete repair shops in Greater New York.

Lewis Marsh and Thomas Markey, of Marshalltown, Ia., have formed a partnership under the title Marsh & Markey and will conduct a salesroom and garage at 65 West State street. The building which is in course of erection will be 50 x 100 feet, of brick and concrete, two stories high, and will cost \$10,000.

The Auburn Garage Co. has been organized in Auburn, N. Y., with I. F. Eastman, John Hill and V. S. Darling as directors. It has taken over the business of the Darling Automobile Co., and is building an addition to the garage, 40 x 50 feet, of concrete and brick construction. Reo and Maxwell cars are handled.

C. Reese Eaby, of Lancaster, Pa., has been appointed receiver for the National Automobile Co., of the same place, upon the petition of Ida Roth, owner of nine-tenths of the capital stock of the company. The petition states that the company is indebted to the amount of \$1,000, and that all its assets consist of claims which are not collectible.

Louisville, Ky., is undergoing a period of unprecedented building activity in the automobile line. Hite Bowman has opened salesrooms at Fourth avenue and Oak

street; the Yager Motor Car Co. has taken possession of its new building on Third avenue, near Breckenridge street; the Broadway Auto Co. has moved into its new salesrooms at Jackson street and Broadway; the Urwick Machinery & Supply Co. is preparing to show its Marmon line at Brook street and Broadway; the Louisville Automobile Co. is building a \$4,000 garage on Third avenue, and the Miller Auto Co. is adding a second story to its garage.

West Market street, Philadelphia, Pa., gradually is being transformed into a thriving automobile center. The latest firms to locate in that promising section are the Autocar Co., which is building a fireproof garage and service building at the southwest corner of Market and 23d street; the Bartlett Garage, which is going up at 21st and Market streets, and where the Woods Motor Vehicle Co. and the Waverley Co. will show their respective electrics; the Foss-Hughes Co., agents for the Pierce-Arrow cars, also will locate in the Bartlett building, and Locomobiles, which at present are exhibited at 245 North Broad street, are being transferred to Market street, adjoining the Autocar building.

## Recent Losses by Fire.

Atlanta, Ga.—Atlanta Taxicab Co., workshop destroyed; total loss, \$5,000.

Canton, Ohio—Charles White, garage and two cars destroyed; loss, \$6,000.

Saginaw, Mich.—Wiggins-Scollen Auto Co., store house burned; automobiles saved; loss, \$1,000.

San Francisco, Cal.—Frank Renstrom garage, Oak and Stanyon streets, burned; loss, \$10,000.

Los Angeles, Cal.—Plaza Machine Co., automobile repair shop, 523 North Main street, destroyed; loss, \$1,500.

Port Colburne, Ont.—T. E. Reeb & Sons' foundry and automobile supplies warehouse destroyed; loss, \$15,000; insurance, \$4,000. Incendiary origin.

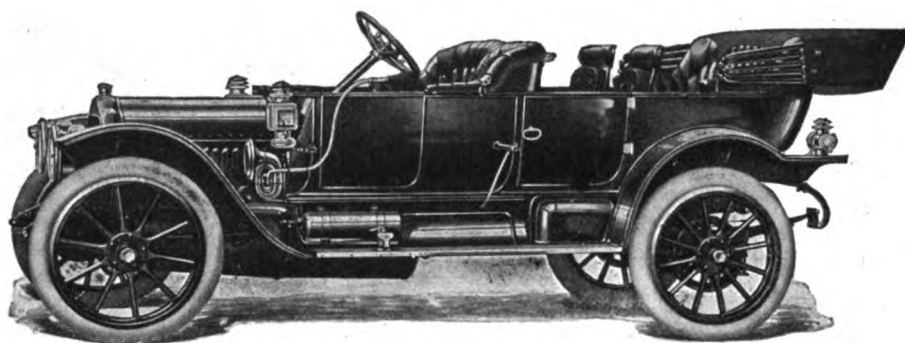
## Changes Among Prominent Tradesmen.

A. A. Woodruff has been appointed superintendent of coach work of the Pierce-Arrow Motor Car Co., Buffalo, N. Y. Previously he was with the E. R. Thomas Motor Co., and before his connection with Thomas was in business for himself, practically his entire lifetime having been spent in high class carriage work.

J. L. Jordan has been appointed manager of the Goodyear Tire & Rubber Co.'s branch in Minneapolis. He succeeds F. W. Norton, who has been transferred to Chicago for duty in the office there.

## Metz Seeking Factory Site in Ohio.

Youngstown, Ohio, reports that the Metz Co., of Waltham, Mass., is seeking a factory site in that city. The local chamber of commerce has the matter in hand and will deal with it.



## THIS IS THE NEW 40 H.P.

**T**HIS is the latest gasoline-driven passenger car from the great White Factory—embodying the supreme effort of our splendid organization to produce a better motor car. Months were spent upon this design, and in addition to our own corps of engineers, the most eminent authorities on gasoline engine-building were consulted, both at home and abroad, to make certain that this new model should combine the most advanced thought.

It has the left hand drive, and within the limits of human fallibility, this car is produced as the best obtainable in the engineering and body building art of to-day. Being a totally different size, in designing this engine, there were no patterns to be saved, no economies to be effected and no advantages to be gained by following any precedent of our own or other factories. Therefore, having been so prodigal of time and money in the production of this car, it is with pride that we announce that it retains all the essential characteristics of former White Gasoline Construction—the cylinders are cast en bloc and the long stroke engine is continued. It is a striking tribute to our 30 horsepower gasoline car, that is only equalled by its remarkable performance from the standpoint of economy. The world's engineers have been unable to suggest any improvement in our engine—have been unable to produce a better gasoline-driven car, and so we have made a larger one. The five passenger, torpedo body selling at \$3,000.00 and the seven passenger, at \$3,200.00.

This car will be on display at all important shows, and at our branches in all important cities.

**The White**  **Company**

**830 East 79th Street, Cleveland**



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### Where Windshields are Required.

That motorists are not the sort of people who are afraid of a little fresh air is proclaimed by their right to the appellation, but that they are sufficiently human to shun and even to fear the discomfort and danger of draughts as well as the inconveniencing effects of strong winds the flourishing condition of the windshield business ably attests. But that the average windshield equipment by no means performs its duty in an absolutely satisfactory manner is an opinion readily confirmed even among the most red-blooded and lustiest members of the motoring clan. In fact, while protecting the chauffeur in a thorough and, to him, entirely satisfactory manner, the average dash screen itself is the cause of a considerable discomfort to those who occupy the rear seat of a car.

Despite the great amount of attention which has been paid to the subject it is by no means an offensive reflection upon

the manufacturers of such equipment that windshields shield only the occupants of the forward portion of the car. Yet it is a common experience that a vertical or inclined plane of restricted area is capable of creating only a relatively small eddy of still air when placed at right angles to a current of air; this fact is demonstrated in a hundred ways, in open trolley cars, on the bridge decks of ships, even on the lee side of small buildings. The only remarkable thing about it is that the single screen mounted on the dash ever should have been considered capable of rendering adequate protection for the entire body of the car.

While a few isolated attempts have been

### Why The Motor World.

Wichita, Kan., Nov. 21, 1910.

Motor World, New York, N. Y.

Gentlemen:—Enclosed find check for renewal of our subscription to the Motor World. We at present subscribe for no less than six automobile trade journals, and would rather do without all of the other five than to miss any one of the Motor World. Our reason for this is that we believe its editorial articles are absolutely uninfluenced by the advertising department and also for the reason that in the Motor World we often get news of vital interest to us almost always a week in advance of the others.

Wishing you continued success for the coming year, we are

Yours very truly,

The Wichita Automobile Co.,  
M. H. Schollenberger.

made to instal shields of the ordinary type on the back of the front seat the practice never has become general. One ambitious body builder also has had the initiative to propose the continuation of the back of the rear seat to a point above the passengers' heads, filling in the upper panels with glass, the object being the same. In general, however, absolutely nothing has been done in the way of protecting the occupants of rear seats from head winds, which, of course, are the most prevalent and annoying.

The heavy market for accessories and equipment of all sorts, the close competition among tradesmen, the peculiar readiness with which novelties may be introduced, all point to the probable commer-

cial success and relative freedom from risk of developing something along this line. While it would seem possible to develop a rear windshield along entirely new lines, relative success probably could be obtained by adapting the present forms to that use and providing suitable means for installation. In itself this would present no very formidable task; indeed it is surprising that it was not accomplished long ago.

### Developments of Lubrication Systems.

The present year has been notable for at least two important advances in lubrication theory as applied to automobile engines. One is recognition of the fact that the requirement for oil is not directly proportional to the speed of the crank shaft, the other is an appreciation of the importance of so designing an automatic circulating system that it may be used on the ordinary splash pan. Both considerations are worthy of close attention.

In a general way it may be supposed that doubling the speed of the motor will double its requirement for oil, but that such is not necessarily the case a moment's reflection will show. Within the cylinder the heat of the explosion serves to lap a portion of the oil off the upper wall surface, thus necessitating the renewal of the film at each stroke of the piston. In each of the ordinary bearings, those of the crank shaft, connecting rod wrist pins, a certain amount of oil is forced out at the ends of the journal. The oil consumption of the cams and of the valve gears is caused by the squeezing of the oil film from between the respective surfaces of the moving parts.

Considered independently it would appear that these several requirements must be very nearly proportional to the speed, save possibly that of the upper portion of the cylinder, where the greater heat of high speed running may be supposed to cause more rapid evaporation of the oil at high than at low speeds. But the effect of centrifugal force always enters into account, whether the system be of the simple splash order or one in which the centrifugal action is depended upon to ensure circulation. And it must be borne in mind that the loss of oil from all revolving surfaces increases as the square of the speed. Where splash is depended on for crank case circulation it also follows that less actual splashing occurs at each stroke, the lubricant vir-

tually being spread out in a film over the interior of the crank case.

To obviate this latter effect a number of designers are introducing troughs into which oil scoops on the crank arms dip at each stroke, provision being made to feed a continuous stream of oil into the troughs. In a few instances the position of the troughs may be altered, either by voluntary adjustment or automatically upon movement of the throttle lever, to cause the scoops to dip more deeply at high engine speeds than at low. Oil pump adjusting devices, variable feeds and hand pumps are more crude and less satisfactory arrangements that are used to increase the supply of lubricant when high speeds are to be maintained.

The other advance mentioned is equally important, because no matter how perfect a circulating system, it is liable to be incapacitated by a clogged strainer or duct, and, in rare instances, by a disabled pump. Even the installation of two pumps, as sometimes is done, cannot wholly obviate the risk. But if the system is properly designed, the crank case can be flooded in such an emergency and the engine run with a fair degree of success by the simple splash method. If the system be designed with this provision in mind its value will be considerably enhanced, while its working under normal conditions will be in no wise impaired.

#### **The Value of Deflecting Lamp Brackets.**

It is a perfectly safe assumption that every person who ever rode on the front seat of a motor car in an unknown country and on a dark night has wondered why the headlights are not made to deflect with the wheels, instead of illuminating the ditches and hedgerows at the outside of every turn encountered. That a fair proportion of such reflections have been turned to practical account in the invention of means for the accomplishment of this very object is evidenced by the granting of a considerable number of patents covering suitable devices as well as by the presence in the market of perhaps a dozen different flexible lamp brackets. What does seem a little difficult of understanding is that the use of systems of the sort is practically unknown on the road.

As to the use of lamp deflectors it may be objected that when taking turns at night the whole inclination is for the car to run

## COMING EVENTS

November 30-December 1, New York City—Annual meeting of American Automobile Association in Hotel Belmont.

December 1-3, Peoria, Ill.—First annual show of automobile dealers in the Coliseum.

December 3, Norfolk, Va.—Racemeet on old fair grounds track.

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 12-17, Los Angeles, Cal.—First annual "independent" show of Los Angeles Motor Car Dealers' Association at Shrine Auditorium.

December 24-31, Los Angeles, Cal.—Second annual show of Licensed Motor Car Dealers' Association of Los Angeles at Fiesta Park.

December 25-26, Los Angeles, Cal.—Twenty-four hours race at Motordrome.

December 31-January 7, New York City—"Independent" automobile show in Grand Central Palace.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 11-12, New York City—Annual meeting of the Society of Automobile Engineers.

January 13, New York City—Annual banquet of the Motor and Accessory Manufacturers at Waldorf-Astoria.

January 14-28, Philadelphia, Pa.—Annual show of Philadelphia Licensed Automobile Dealers' Association in Third Regiment Armory.

January 15-21, Milwaukee, Wis.—Milwaukee Automobile Dealers' Association's second annual show in the Auditorium.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square

toward the outside, both through the difficulty of seeing the limits of the track and also as a result of the skidding tendency. But this contention is about as logical as many of the arguments against the use of left hand control for city use; it is the right hand side of the car that is most in danger on a country road—the driver hugs the right side at night and the ditch, too, is on that side, and it is the track toward which the front wheels are directed that it is most important to be able to see clearly.

As the ratio between production and de-

Garden. Second week devoted to commercial vehicles.

January 16-22, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 18, New York City—Annual banquet of the Automobile Trade Credit Association.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Buffalo, N. Y.—Annual show.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

February 14-19, Dayton, Ohio—Second annual show in Memorial building.

February 15-21, Kansas City, Mo.—Fifth annual show of Kansas City Automobile Dealers' Association.

February 18-25, Minneapolis, Minn.—Minneapolis Automobile Show Association's annual show in National Guard Armory.

February 20-26, Omaha, Neb.—Third annual show of the Omaha Automobile Show Association in Auditorium.

February 24-27, New Orleans, La.—First annual show of New Orleans Automobile Club at Fair Grounds.

February 25-March 4, Toronto, Canada—Annual show under auspices of Ontario Motor League.

February 25-27, New Orleans, La.—New Orleans Automobile Club's annual Mardi Gras racemeet on Fair Grounds track.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 7-11, Des Moines, Ia.—Third annual show of Des Moines Automobile Dealers' Association at the Coliseum.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

mand decreases with the growth of the industry and competition likewise is increased the tendency among manufacturers to increase their standard equipment is destined to become even more pronounced than it is at present. Ultimately it may become necessary to go outside the realm of the ordinary line of equipment features in order to secure the impetus required to increase sales of cars that are in closely competing classes. Obviously the deflecting lamp bracket should prove a useful device to adopt with such an object in view.



**BRISCOE ON FOREIGN SITUATION**

**Returns from Abroad Full of Instructive Impressions—May Build Factory in Germany as Well as in England.**

Having completed the chief object of his visit, the formation of an English company, Benjamin Briscoe, president of the United States Motor Co., returned from abroad on Friday last, 25th inst. The English company, as already reported by the Motor World, is styled the United International Motors, Ltd., and pending manufacturing operations it already is displaying American-made Maxwell, Brush, Columbia, Stoddard-Dayton, Courier and Sampson cars in London salesrooms.

While most of his time was spent in London, Mr. Briscoe also visited the Continent, and as a result the establishment of a factory in Germany also is in contemplation. Naturally, Mr. Briscoe brought back a considerable fund of interesting observations and opinions.

"A shortage of cars, a great increase in taxicab building, a rapid development of the commercial vehicle, a general standardization of chassis, popularity of torpedo and closed-front bodies, a large demand for American built cars, especially the low and medium priced models, and a general tone of optimism," is the manner in which he summarizes the situation existing in Europe.

Mr. Briscoe states that the motor car industry abroad appears to be in an extremely prosperous condition; in England especially he found evidence on every hand that the industry is now in the era of its greatest prosperity.

"I was particularly interested in the development of the industry in England," remarked Mr. Briscoe, "because what occurred in the bicycle business seems to be repeating itself in the automobile trade; that, whereas the Englishman was slow in settling down to systematic production, when they did the progress of their manufacturing plants was steady and rapid. Apropos of the bicycle business in England, I am told that it has never been larger than it is today. There will be no less than 600,000 bicycles made there this year."

Mr. Briscoe declared that the Olympia show produced practically nothing new in mechanical design. He considered it more of a coach-builders' show than an exhibit of mechanical construction. Closed-front bodies are practically in such universal use that it seems to be impossible to sell a car in England or Europe which has not a body designed with both front and rear doors. The taste in bodies seems to run more to curves than is the case in America; in fact, to an American manufacturer, educated to

the straight-line body construction such as has prevailed here for the last few years, some of the English designs look antique and odd.

"We are so accustomed to big figures in the motor car industry, as in all other industries generally in our country," Mr. Briscoe continued, "that one has to be careful in his conversation while abroad so as not to appear to be bragging, for it is hard for the Englishman or the European to believe the actual figures of American automobile production.

"When I told some of the motor people that the United States Motor Co. was producing 15,000 Maxwells, 10,000 Brush cars, and 10,000 Stoddard-Daytons, Columbias and Alden-Sampsons per annum, or 35,000 in all, each year, they were at first inclined to doubt that any one concern could have the facilities for such an output; for the English and Continental system of manufacturing is so different from the American system as to make it appear almost incredible to them that the American figures could be reached.

"For instance, there are over 240 models of cars manufactured in Great Britain, which, reckoned on the basis of the sales made during 1909, makes an average of only 60 cars per model. It seems to be the ambition of the manufacturers over there to multiply their models into as great a variety as possible; in fact, some concerns seem to take pride in the fact that no two cars they make are alike. The confusion that this causes in the business readily can be imagined. Some of the manufacturers, however, have adopted the American system with notable success; in fact, the largest concern outside of America engaged in the manufacture of automobiles is managed by natives of America, who, however, have become practically dyed-in-the-wool Englishmen.

"To quote some figures as to the condition of the trade in England, France and Germany, the three countries that I visited, I had obtained for me from the Government Statistical Office copies of the automobile records. In England, for the year ending January 1st, 1910, there were sold 19,184 cars, 14,239 of which were English made cars. The average value of the English made car seems to be about \$1,900. This fact indicates what a limited conception the English manufacturer and people have of the ultimate universal use of the automobile, but the English people are fast becoming alive to the fact that the automobile spells economy, as the demand for medium priced cars seems to be growing much faster than the production, although there are several English manufacturers who are now preparing to meet this demand with cars selling at about \$1,000.

"In Germany, in 1909, there were about 8,000 cars sold and in France between 8,000 and 9,000. While, therefore, the number of cars sold in these three countries is only

about one-sixth of the total number sold in America, on account of the increased selling price per car the annual turn-over is nearly one-half what it is in America.

"The opinion that my investigations forced upon me is that no very large returns will follow the practice of placing with a European dealer a line of cars as they are made for American roads and American conditions, nor can the American manufacturer hope for any considerable volume of sales if the business is to be handled at long range.

"Our company having reached a point in the development of its factory facilities that are certainly vastly superior to anything in Europe, I think it is not presumptuous for us to believe that we can hold our own against all comers in the world's markets, provided we adapt our designs to fit European conditions. Our plants are certainly more thoroughly organized and more completely equipped and our methods and processes are more highly specialized and systematized, so that there is, to my mind, no question that a wide and growing market for our product can be obtained.

"In the main, however, the mechanical construction in the American cars is the same as foreign cars, and I think it now fairly can be said that they are more highly developed mechanically, being the result of a vastly greater experience of American over foreign makers, coming from the much larger annual outputs.

"The American manufacturers, therefore, undoubtedly can give the buyer a better mechanical product than the foreign makers and all that must be done is to bring the various types of mechanical construction in line with foreign demands; I would put it this way: American makers cannot hope to be successful in selling to the foreigner just what he, the manufacturer, wants to sell; he will have to make what the foreigner wants to buy.

"The United States Motor Co. proposes to adapt its foreign programs to this point, and as fortunately the ownership of the company is to a certain extent international, it will not have to combat to the fullest extent the jealousy and prejudice that attach to a purely alien concern. It is quite astonishing to an American to note the prejudice that seems to exist in England against American goods. The Englishmen call us cousins, and yet they seem to look with a good deal less prejudice upon goods made either in France, Germany or Italy than those that are manufactured in America.

"With the establishment by our company of an English factory in any event, and possibly one in Germany, and with the introduction of the system and specialization that is in vogue in our other factories, we have no doubt but that we will be able to make excellent headway in the securing of as much of the world's trade as we have a reasonable right to expect."

## ROCKETS HERALDED OAKLAND SHOW

And After "Unveiling" of Vanderbilt Cup, Show is Declared Open—First Display of 1911 Models.

To the thriving city of Oakland, Cal., belongs the credit of opening the show season of 1910-11, its exhibition, under the auspices of the Oakland Dealers' Association, running the whole of last week, 19th-26th ult., in Idora Park Pavilion. But while it may seem a bit early for the show season to open, particularly on the Coast, it is true, as always is the case, that the new products have been received long before they have been shown elsewhere, even in the immediate neighborhoods where they are produced. Therefore the Oakland show partook in all respects of the 1910-11 flavor and proved in regard to exhibits both a show in itself and a forecast of shows.

Very much on the traditional lines of a circus, the actual opening was preceded by a street parade in which several hundred cars participated, touring the business section of the city and proceeding out to the park, after being joined by a delegation of machines brought over from San Francisco for the purpose. Upon the arrival of the procession at the grounds five large, red and fiery rockets were sent up, which signalized the opening of the show and also indicated the precise instant at which Mayor Frank H. Mott, chairman of the show committee, began his formal address of welcome by pointing out that in point of numbers California ranks second in the list of automobile owning states. At the close of the speech the Vanderbilt Cup, loaned by the American Locomotive Co., its present holder, for the purpose of the show, was "unveiled" with befitting deliberation and ceremony.

The fifty-odd exhibitors who had space in the show mustered all told some 250 cars. Sixty different makes of pleasure vehicles were shown, four styles of commercial car, and five of electric. Nine exhibitors staged accessories. The pavilion was decorated with bunting and evergreens and illuminated by incandescent lamps hung in Japanese lanterns. Violating all precedent for shows of equal pretention, "Society Night" was omitted, the admission fee of 50 cents remaining the same throughout the week, despite the inviting commercial opportunity offered by Thanksgiving day. A list of the exhibits follows:

Pleasure cars: Pope-Hartford, Mitchell, Winton, Maxwell, Columbia, Knox, Stevens-Duryea, Cadillac, Reo, Chalmers, Hudson, Lozier, Studebaker, Flanders, E-M-F, Regal, Gase, Cartecar, Simplex, Great Western, Krit, Metz, Correja, Apperson, American, Overland, Kissel, Marion, Sun-

set, Corbin, Amplex, Moon, Michigan, Speedwell, Inter-State, Ford, Velie, Oldsmobile, Buick, Haynes, Palmer-Singer, Matheson, Columbus, Franklin, Ohio, Auto-car, Rambler, McFarlan Six, Black Crow, International, Cunningham, Oakland, Hupmobile, Stoddard-Dayton, Locomobile, Peerless, Everitt, Alco, Mercer, Thomas.

Electric vehicles: Detroit, Columbus, Studebaker, Baker, Babcock.

Commercial vehicles: Avery, Grabowsky, Gramm, Frayer-Miller.

Accessories: New York Lubricating Oil Co., Martland Tire Co., Standard Oil Co., Bosch Magneto Co., S. F. Bowser & Co., Weinstock & Nichols (successors Moore Motor Supply Co.), I. Steinman, P. Hulme, J. Bacon.

### Forcing Reduction of Taxicab Rates.

Having failed in their attempt to regulate taximeter cab rates in New York City, through the invalidation of their ordinance on the pretext that it discriminated against a majority of the operators, the aldermen are considering a more general plan of rate regulation. A bill introduced by Alderman Courtlandt Nicoll last Tuesday, 29th ult., provides for the revision of the rates imposed by all classes of public service vehicles, whether horse or motor propelled, and regardless of whether they are taximeter equipped. It also provides for the abolition of exclusive stand privileges. By the proposed scale, horse drawn cabs may be charged for at the rate of 30 cents for the first half mile or fraction, and 15 cents for each succeeding half mile or fraction. The initial charge for coaches is 50 cents, with 25 cents for each additional half mile. Motor cars may be hired for 25 cents initial charge and 15 cents each added half mile. For both classes of vehicles waiting time shall be charged at one dollar an hour, but no charge shall be made for stops not exceeding five minutes. Hourly rates, applying only to shopping and calling, and not including park driving nor driving more than five miles from the starting point, are \$1.50 for the first hour or fraction, and 50 cents for each additional hour or fraction thereof.

### New York Auctions Off Its Old Cars.

Five automobiles belonging to the Department of Finance of New York City were sold at public auction last week at the Brooklyn Bridge Garage, and brought but \$1,745. The original cost of the cars was \$18,000. Many of the cars showed the wear and tear of hard usage, and one, which seemed to have gone through many a "joy ride," was almost a complete wreck. The list of machines which were thus cheaply disposed of included: One six cylinder Thomas, model 1905, \$250; one Pierce-Arrow, model 1903, \$400; one Berliet, model 1903, \$525; one Locomobile, model 1904, \$265; one Cadillac (badly damaged), model 1909, \$305.

## "TO TAKE ROADS OUT OF POLITICS"

One Aim of New Highway Improvement Association—Federal and Railroad Officials Lead Movement.

Federal officials and officers of railroad companies constitute the backbone of the American Association for Highway Improvement which was organized last week at a meeting held at the Cosmos Club in Washington, D. C., at which James S. Harlan, of the Inter-State Commerce Commission acted as temporary chairman.

The officers chosen are as follows: President, Logan Waller Page, director of United States Office of Public Roads; vice-president, W. C. Brown, president of the New York Central railroad; treasurer, Lee McClung, United States Treasurer; secretary, J. R. Pennypacker, Jr., United States Office of Public Roads. Directors: Louis W. Hill, president Great Northern railroad, chairman; James McCrea, president of the Pennsylvania railroad; W. W. Finley, president Georgia Southern & Florida railroad; B. F. Yoakum, chairman of the Rock Island and Frisco Railway Systems; John M. Goodell, editor Engineering Record; Melville E. Stone, general manager of the Associated Press; R. D. Chapin, of Detroit, representing the National Association of Automobile Manufacturers; A. G. Spalding, of California; John A. Stewart, president New York State League of Republican Clubs; James S. Harlan, of Washington; Leonard Tufts, of Pinehurst, N. C.; Bryan Lathrop, of Chicago; George C. Diehl, of Buffalo, Engineer of Erie county, and John W. Jones, president Touring Club of America.

The main object of the association as defined by its constitution is "to harmonize and correlate all efforts for the improvement of public roads to the end that adequate and sufficient systems of road construction, administration and maintenance may be adopted in all the states." One of the aims of the organization is to "take the roads problem out of politics" and to install expert supervision under the direction of the United States Office of Public Roads in the construction and maintenance of the highways and to broaden the development of a continuous country wide system linking together the improved highways from state to state.

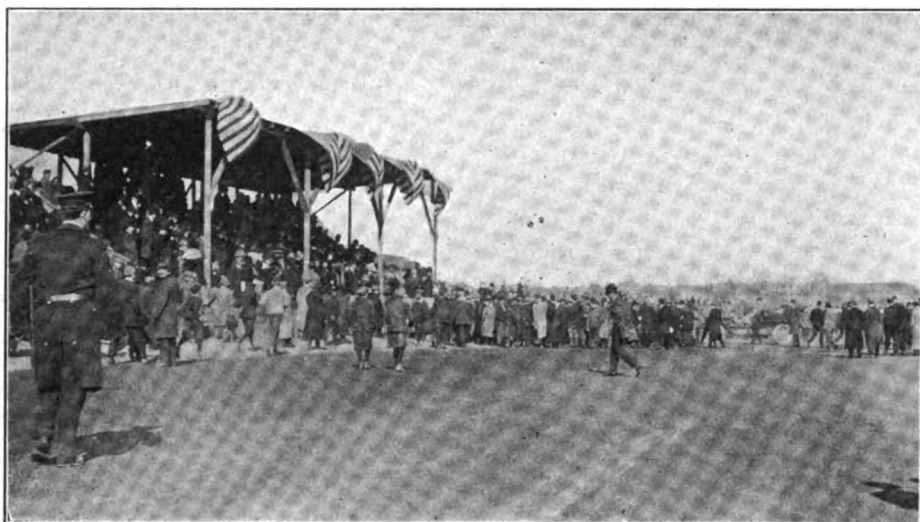
### How a Kansas Road Was Improved.

"Many hands make light work" was amply proven last week when 1,500 men turned out and built a road between Independence, Kan., and Coffeetown, 18 miles away, in one day. With the exception of spreading the oil, the road, which had been started at sunrise, was finished before night had fallen.

**RUNAWAYS ON GUTTENBERG TRACK**

**Tame Sport Marks Thanksgiving Meet on Old Horse Course—Ralph DePalma Has a Narrow Escape.**

There was a rather free and easy race-meet at the old Guttenberg (N. J.) mile track on Thursday last, 24th ult.—the track of odoriferous memory where once ponies pranced and caused the cry "They're



THE SHAKY GRANDSTAND AND THE CROWD AT THE "GUTT"

off at the Gutt!" to resound in scores of pool rooms in which its one-time owners were interested. They were automobiles, however, and not ponies that pranced on Thursday last, the meet being a privately promoted affair. The stands are rather decrepit, the track surface is full of soft spots and the rails which guarded it long since disappeared. As a result, a large part of the crowd which witnessed Thursday's racing gathered at the edge of the track and on the turns and ran across the course pretty much when and where it willed. But Providence was kind to the unthinking persons and no one was hurt.

Ralph DePalma, who with Robert Burman and Thomas Costello, was the star of the occasion, ran off the track in the 20 miles free-for-all when a steering knuckle broke on his Fiat, but he remained right side up and escaped injury. He was far in the lead at the time, and when he was forced to quit, D. C. Teetor (National) took up the running and won. He also accounted for the five miles. DePalma, however, won the ten miles free-for-all. Costello (Maxwell) took the event for cars up to 230 cubic inches and V. Wilhelm (Mitchell) the one for the 231-300 class in which the only other starter, Rouse (Pullman), was stopped by a broken axle. Burman did not compete, but earned his "bit" by giving an exhibition in his big Marquette-Buick. He drove ten miles in 9:57½. The sport was all of the runaway order; the winners sim-

ply took the lead and never relinquished it, except in the case of DePalma, whose accident contributed the only excitement. The summary:

Five miles, for cars up to 230 cubic inches displacement—Won by Costello, Maxwell; second, M. Basle, Abbott-Detroit; third, Wolverton, Maxwell. Time, 6:07.

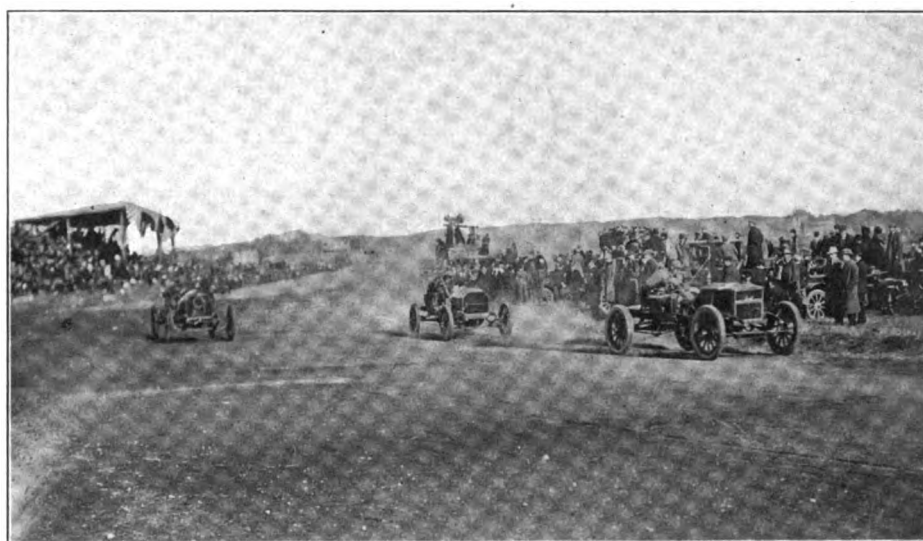
Ten miles free-for-all—Won by DePalma, Fiat; second, D. C. Teetor, National; third, Beach, Buick. Time, 10:16¾.

Fifteen miles, for cars from 231 to 300

**OLDFIELD'S IMAGINATION WORKS**

**It Makes Him Fancy He is an Association  
—Will Get the Californians' Money  
Somehow or Other.**

Barney Oldfield, Jack Johnson's partner in the moving picture game and "hero" of the Virginia colored people's celebration, is now in Los Angeles in a dreadful frame of mind. After having the door slammed in his face in Atlanta, Ga., and having an action against the American Automobile Association, which had outlawed him, thrown out of court, he went to Shreveport, La., where he picked up some easy money, and then made tracks for the Pacific Coast, where he had a contract to collect some more of it. He was to exhibit himself at the Los Angeles Motordrome meet on Saturday last, but though he got the ear of the local newspaper reporters who wept tears over him, Barney was not permitted to "slip out of the grandstand" and tear around the track as was the case in Boston. He was ready to turn the trick, but instead he was shown the gate. Then deciding to imagine that he is his own association, he christened himself the Pacific Coast Motor Racing Association,



COSTELLO (MAXWELL) LEADING THE FIVE MILES RACE FOR SMALL CARS

cubic inches displacement—Won by V. Wilhelms, Mitchell; second, Rouse, Pullman. Time, 20:21½.

Ten miles exhibition by Robert Burman in Marquette-Buick. Time, 9:57½.

Twenty miles free-for-all—Won by D. C. Teetor, National; second, C. P. Whelan, Matheson; third, T. Costello, Maxwell. Time, 23:00.

Five miles, for cars from 301 to 600 cubic inches displacement—Won by Teetor, National; second, Rouse, Pullman; third, W. Burke, Pullman. Time, 5:32.

and as the owners of the Ascot Park dirt track apparently do not mind having their property outlawed and stigmatized, Oldfield is to be allowed to use it, and on December 10 and 11 he will give his first race-meet there. He is said to have broken away from "Bill" Pickens, his picturesque manager, and "Bill" took it so much to heart that he promptly took another partner—a wife. The man who is understood to have replaced Pickens in the Oldfield affections is J. Alex. Sloan, who also is on the "in bad" list.

**WELKER WINS HARRISBURG HONORS**

**Obtains Only Perfect Score in Two Days' Endurance Contest—Technical Examination Decides Other Awards.**

Of 21 contenders who started in the Harrisburg (Pa.) Automobile Club's fall endurance contest on November 21, ten finished the two days' struggle with perfect road records, but when the technical examination was completed but one, Herbert Welker, who drove a 40 horsepower Pullman, retained an unblemished score. But as there were no less than eight classes in the contest, there were honors enough to go around.

Although they are not vociferously proclaimed, the Harrisburg club's annual contests are not of the milk and water sort. As was the case in the present instance, the distances are satisfying and the roads traversed are of the sort that would not be selected by a tenderfoot. They penetrate some of the roughest and steepest districts lying among the rugged Pennsylvania mountains.

On the first day of last week's contest, the route was from Harrisburg to York, via Hanover, Hagerstown and Chambersburg, and back to Harrisburg, a distance of 170 miles. The second day's travel, November 22, also was over an out and home course leading through Lebanon, Pine Grove, Pottsville, Shamokin and Lykens, a distance of 188 miles.

The first day's run brought about the elimination of four cars, the most serious accident of the day being the overturning of the Firestone-Columbus, driven by H. F. Rasmussen. The Maxwell, piloted by H. E. Walls, quit because of oiler trouble and an accident to one of the occupants in the Interstate caused I. W. Dill to withdraw. The Velie, with P. W. Walker at the wheel, had carried only three persons, and was not allowed to finish, as the rules require four persons to be carried. Three of these cars, the Interstate, Maxwell and Velie, constituted the entire entry in the touring car class of division 4A, and their withdrawal left this class without competition. A. A. Miller, in a Crawford, skidded into a boulder, thereby sustaining a broken front axle, which cost him 2809 points and practically put him out of the contest, for although he made repairs he reached all controls nearly 12 hours late.

On the second day's run L. V. Fletcher, in a Kline Kar, skidded into a large boulder and broke some of his oil connections, necessitating his withdrawal, and Charles Barnes's Pullman collided with a wagon, thereby sustaining damage which cost 107 points. Of the remaining 16 who finished, 10 had perfect road scores, but after the technical examination, Welker (Pullman),

as stated, alone remained without a demerit.

In the \$1201-\$1600 class, the Reo, driven by McFarland and Kimmel, was penalized three points for a lost grease cup, a loose nut on the brake and a leak in the water pump. Wayne Davis at the wheel of an Everitt collided with a wagon and received 13 points for a broken fender and loose bolts in a wheel. W. G. Vandergriff's Kline Kar received two points and H. G. Kinginger's Warren-Detroit four points, and Andrew Redmond's Maxwell was given 17 points for time lost and the replacing of a battery wire.

In the touring car class of division 5A Roy Steins in a Pullman carried off the honors with only two demerits on technical examination. C. C. Farman's Kline-Kar was penalized 11 points for a broken fender and damage to the body caused by a collision. A broken rear axle housing and damaged wheel cost the Pullman driven by Ickes 38 points. The contestants in the runabout class of this division were equally unlucky, W. P. Sieg's Kline Kar receiving 26 points roads penalty and three points on technical examination for a bent fan which necessitated frequent stops for water. Groves's Pullman was debited 19 points for brakes.

Harold Smith in a Columbia was the only starter in the touring class of Division 6A and he finished with a perfect road score, but received three points on technical examination. The Pullman and Kline Kar, driven by Welker and Kline, respectively, in the runabout class of this division were the only cars in the contest to finish with a clean technical score. Kline, however, was penalized eight points for work done before leaving Harrisburg the second day. The summary:

**Division 3A, Class 1—Touring Cars, \$1201 to \$1600.**

	Road.	Tech.	Pen.	Total
McFarland, Reo .....	0	3	3	
Davis, Everitt .....	0	13	13	
Miller, Crawford .....	2804	5	2809	

**Division 3A, Class 2—Runabouts.**

Vandergriff, Kline Kar..	0	2	2
Kinginger, Warren-Det..	0	4	4
Redmond, Maxwell .....	12	5	17
Rasmussen, Fire-Col....	Withdrawn.		

**Division 4A, Class 1—Touring Cars, \$1601 to \$2000.**

Dill, Interstate .....	Withdrawn.		
Thompson, Velie .....	Withdrawn.		
Walls, Maxwell .....	Withdrawn.		

**Division 4A, Class 2—Runabouts.**

Rockefeller, Velie .....	0	2	2
Barnes, Pullman .....	88	19	107
Fletcher, Kline Kar....	Withdrawn.		

**Division 5A, Class 1—Touring Cars, \$2001 to \$3000.**

Steins, Pullman .....	0	2	2
Fairman, Kline Kar.....	0	11	11
Ickes, Pullman .....	2	36	38

**Division 5A, Class 2—Runabouts.**

Grove, Pullman .....	0	19	19
Sieg, Kline Kar.....	26	3	29

**Division 6A, Class 1—Touring Cars, \$3001 to \$4000.**

Smith, Columbia .....	0	3	3
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**Division 6A, Class 2—Runabouts.**

Welker, Pullman .....	0	0	0
Kline, Kline-Kar .....	8	0	8

**Five Miles Matches Make a Racemeet.**

Although they are Philadelphians, Harvey Ringler and George Proud are the leading spirits in what is styled the South Jersey Motor Club, which on Thanksgiving Day, November 24, collected more than 1,000 admission fees at the Bridgton (N. J.) Driving Association's half-mile track, where the club held its first meet. Motorcycle racing was mixed with automobile sport, but as the latter all was of the "match race" variety, the spectacle of only two men in competition did not cause much excitement or many thrills. All of the events were five miles affairs. The summary:

Five miles, Harry Hunt, Buick, vs. George Reeves, Mitchell—Won by Hunt. Time, 8:01½.

Five miles, Joseph Parkin, Parkin, vs. Harvey Ringler, Pullman—Won by Parkin. Time, 7 minutes.

Five miles, Biddle, Mercedes, vs. McIntyre, Pullman—Won by Biddle. Time, 7:25.

Five miles, Blockman, Jackson, vs. Adee, Pullman—Won by Blockman. Time, 7:31½.

Five miles, Joseph Parkin, Parkin, vs. Blockman, Jackson—Won by Parkin. Time, 6:02½.

Five miles, Stowell, Buick, vs. Adee, Pullman—Declared no race. Stowell's time, 7:06½.

Five miles, Noel Flomey De Clos, Fiat, vs. Kelly, Mercedes—Declared no race.

**Witt and Cohen Collect Columbia's Coin.**

Frank Witt and Harry Cohen, the E-M-F cracks, were almost the whole show at the racemeet held on the fair grounds track, Columbia, S. C., Thanksgiving day, 24th ult. Only one event, the mile time trials, which were won by Rawls, Chalmers, escaped them. Witt captured the 50 miles whirl and the 15 miles handicap, and Cohen the five miles race. Etheredge, Maxwell, was the only other man to get "in the money." The most exciting occurrence of the day was provided by Edward Jenkins, E-M-F, who plowed through the fence in the 50 miles event. The summary:

Fifty miles—Won by Frank A. Witt, E-M-F; second, Etheredge, Maxwell; third, Harry Cohen, E-M-F. Time, 53:54.

Five miles—Won by Cohen, E-M-F; second, Witt, E-M-F; third, Etheredge, Maxwell. Time, 5:41.

One mile time trial—Won by Rawls, Chalmers; second, Witt, E-M-F; third, Cohen, E-M-F. Time, 1:01½.

Fifteen miles handicap—Won by Witt, E-M-F (scratch); second, Etheredge, Maxwell (1:47); third, Cohen, E-M-F (40 seconds). Time, 17:19.



**REFEREE ALONE KNOWS RESULTS**

**New York's Endurance Contest an Uncomfortable and Unsatisfying Affair—Vain Seeking for Information.**

The New York Automobile Trade Association held its endurance contest on Tuesday and Wednesday last, November 29th and 30th. That it was no joy ride is well known, but this really is about all that is known of it. Although this is the twentieth century, and New York is supposed to be up to the minute, that affair was so conducted that it added no plumes to the association's cap. Absolutely nothing is

road run pure and simple, there will be no technical examination.

Of 24 entrants, all save one started from Columbus Circle, New York, on Tuesday, despite wet roads and lowering skies, and a state of atmosphere that chilled to the bone. The starters were as follows:

Cars selling for \$800 and under—W. B. Young, Ford.

Cars selling from \$801 to \$1200—C. H. De Lamater, Mitchell; A. H. Day, Hudson.

Cars selling from \$1201 to \$1600—Roy Stains, Pullman; P. Haycock, Reo; P. G. Teabolt, Jr., Marion; J. Ross, Maxwell.

Cars selling from \$1601 to \$2000—Norman Gallatin, Pullman; R. Schmidt, Haynes.

Cars selling from \$2001 to \$3000—F. Hermance, National; W. C. Poertner, Na-



GENERAL VIEW AT THE START OF THE NEW YORK ENDURANCE RUN

known of or is obtainable regarding the scores or the contestants, not even the scores of the first day.

When the run finished the first night the man who was said to have the records was so tired and cold that he sought rest somewhere or other and he could not be located. Last night the referee, A. R. Pardington, who now is said to have the records in the case, hurried to Smithtown, L. I., also to obtain rest, and while Mr. Pardington may know what happened and what is the standing of the contestants, the information appears to be locked securely in his person. Last evening some of the newspaper reporters, anxious to give publicity to the affair, gathered at Columbus Circle, New York, and withstood the freezing blasts for an hour or more awaiting the arrival of the contestants, while others chased themselves from store to store and from garage to garage in an effort to discover someone who knew something about the contest. It finally was learned that the cars were checked out and scattered on arrival at the New Jersey ferryhouse. As it was a

tional; H. Harding, Stoddard-Dayton; W. H. Yule, Stoddard-Dayton; Herbert Welker, Pullman; Arthur Warren, Pope-Hartford; Chris. White, Babcock; T. Spear, Oldsmobile; H. H. Knepper, Corbin; A. Holtzmuller, Speedwell.

Cars selling from \$3001 to \$4000—M. Wagner, Columbia.

Cars selling for over \$4000—G. H. Wallace, Stearns.

The route for the first day was from New York to Danbury, Conn., and return, 136 miles. The roads were slippery and treacherous and, according to rumor, delays and penalizations were numerous, but all starters survived.

The second day's run was from Weehawken, N. J., to Newburgh, N. Y., and return, 139 miles. More mud, but not so much of it, was encountered, and the weather was even more chilling than on the first day. On this journey the only contenders that failed to finish were Holtzmuller, Speedwell, and Teabolt, Marion. Wallace, Stearns, however, did not check out in the morning.

**VARIETY AT NEW ORLEANS MEET**

**Slow Races and Fast Ones Distribute the Honors—Crowd on Track Cuts Short the Program.**

New Orleans, which is in Louisiana, had a varied program of automobile sport on the fair grounds track on November 27, speed races, "slow" races, match races and a speed judgment contest providing entertainment for drivers and spectators. In two of the novelty events the contestants were required to cover the quarter mile course in the greatest possible time, running on high gear, in one case slipping the clutch as much as they pleased and in the other without slipping the clutch. In the former "race," which was closed to four cylinder cars, Benzie, driving a Jackson, carried off the laurels, while in the latter a White steamer driven by Powell proved slower than the rest of the field, requiring 12 minutes 17 seconds to complete the quarter mile.

In the speed judgment contest the award was for covering five miles nearest to 10 minutes flat. Grabat, piloting a Great Western, proved the best judge by doing 10:00¾. A half-hour race went to Walker in his Marquette-Buick, after Monteleone in a Thomas had led for three-fourths of the distance. Walker covered 26¾ miles. After finishing, Walker and Younger, Marion, collided, but neither was hurt. The crowd, however, swarmed on the track and prevented one race from being run. The summary:

One-quarter mile slow race for four cylinder cars, operators keeping in high gear but slipping clutches as they pleased—Won by Benzie, Jackson; second, Shaw, Cartercar. Time, 8:21¾.

One-quarter mile slow race, free-for-all, operators keeping in high gear but not slipping clutches—Won by Powell, White steamer. Time, 12:07. Munson, Thomas Six, won in six cylinder class.

Two miles, for cars under 25 horsepower—Won by Joubert, Ford; second, Tuttle, Overland. Time, 2:30¾.

One mile special match race for fully equipped cars—Won by Sellers, Marmon; second, Costello, National. Time, 1:25¾.

Five miles, run in heats—First heat won by Walker, Marquette-Buick; time, 5:47¾. Second heat won by Spear, Jackson; time, 5:35. Final heat won by Spear, Jackson; second, Walker, Marquette-Buick. Time, 5:30.

Five miles speed judgment contest—Won by Grabat, Great Western. Time, 10:00¾.

Thirty minutes' race—Won by Walker, Marquette-Buick; distance, 26¾ miles. Second, Spear, Jackson; distance, 25¾ miles. Third, Monteleone, Thomas; distance 24½ miles.

## TETZLAFF'S DOUBLE WIN

Unknown Californian Springs Into Fame  
by Capturing Two Chief Races at Santa  
Monica Carnival—Course Proves  
Lightning Fast.

In California the climate's the thing. Any native son or adopted son and almost any railroad handbook will vouch for it; and, with or without vouchers, that it is a mighty fine quality of climate there is no doubting. The Californian who really is saturated with the climate of his delightful state will tell you, among other things, that it—the climate—is "faster" than the atmosphere of the rest of the United States; and, since Thursday last, November 24th, which was Thanksgiving day, he will point to the results of the Santa Monica road races as proof that he knows what he is talking about. If he is really bubbling with enthusiasm, he will come near to convincing you that not only is California air superior to all other air but that California possesses the fastest road race course in the universe.

The Santa Monica results are such as lend justification to the assertions. For one Theodore Tetzlaff—called "Teddy" for short and hitherto wholly unknown to fame—who drove a Lozier car, not only captured the two star events of the day but in the shorter of them, which went 151.506 miles, he maintained an average speed of 73.27 miles per hour, which quite eclipses any sustained pace previously recorded in America and is second only to the average of 74.3 miles per hour made by Nazzaro in the Floria cup race in Italy in 1908.

If one lingers long on the Santa Monica summary, however, it is there that he will find figures that make Nazzaro and Tetzlaff appear "small potatoes." In the last lap of the 231-300 race, McKeague is credited with making up more than three minutes on the man ahead of him and beating him home by more than three minutes. To accomplish this feat, McKeague, according to the figures, tripped lightly around the circuit of 8.4 miles in the more than phenomenal time of one minute and 53 seconds!

These Santa Monica road races really constituted a speed carnival. There were four of them, one for small cars—those up to 231 cubic inches, which was won by Earl Fancher in a Maxwell; one for cars from 231 to 300 cubic inches, in which the seeming victor was Clifford McKeague, who drove a Durocar, a California product; one for heavy stock cars, 301 to 600 cubic inches, and a free-for-all, both of which Tetzlaff placed to his credit. They called the free-

## Summary of Road Races Contested at Santa

		FREE-FOR-ALL											
		Displacement.	1	2	3	4	5	6	7	8	9	10	
Driver and Car.			8.4	16.8	25.2	33.6	42.0	50.5	58.9	67.3	75.7	84.1	
T. Tetzlaff, Lozier.....	544	6:49	14:05	21:40	27:47	34:37	41:25	48:15	55:03	61:49	68:34	75:00	
Dingley, Pope-Hartford.....	389.9	7:22	14:21	21:19	28:21	35:10	43:56	50:59	58:04	65:12	72:00	79:00	
J. Nikrent, Knox.....	559	9:06	17:25	25:11	32:53	40:40	48:49	56:53	64:48	72:43	80:37	88:30	
F. Dearborn, Fiat.....	655	7:12	14:16	21:14	33:25	42:12	48:51	55:29	62:01	68:37	75:00	81:30	
R. Kenwood, Ohio.....	260	10:56	21:01	31:06	41:17	51:18	61:14	71:28	81:43	91:49	101:54	111:54	
J. Ryall, Apperson.....	475.2	8:51	19:16	27:49	36:21	44:55	53:24	61:54	70:24	79:02	87:30	95:54	
C. Soules, Isotta.....	584	Broke connecting rod.											
Van Valin, Only.....	196	Broke connecting rod.											
		FOR 301-600 CUBIC INCHES PISTONS											
			1	2	3	4	5	6	7	8	9	10	
T. Tetzlaff, Lozier.....	544	7:16	14:07	20:58	27:48	34:38	41:27	48:16	55:05	61:54	68:43	75:30	
Dingley, Pope-Hartford.....	389.9	7:21	14:19	21:10	28:01	34:53	41:58	50:07	57:01	63:55	70:44	77:30	
B. Seibel, Franklin.....	301.5	8:42	17:05	25:20	33:33	41:45	49:52	57:39	66:12	74:21	82:30	90:30	
H. Brown, Knox.....	375	8:30	16:59	28:00	36:03	44:43	Hit tree.						
J. Ryall, Apperson.....	475.2	8:42	20:23	Valve trouble.									
		FOR 231 TO 300 CUBIC INCHES PISTONS											
			1	2	3	4	5	6	7	8	9	10	
McKeague, Duro.....	280	8:12	20:00	29:04	39:47	48:30	57:47	65:58	74:09	83:48	91:54	100:00	
C. Smith, Maxwell.....	221	9:12	23:08	31:15	39:10	47:06	55:19	63:22	71:44	79:55	87:57	95:54	
Ockerman, Petrel.....	285.6	10:25	19:31	29:22	39:45	48:45	57:56	67:20	76:25	86:27	95:27	104:30	
Greer, Mitchell.....	283.6	9:32	18:00	27:58	36:28	45:17	54:39	62:22	71:49	80:22	89:00	97:30	
Bigelow, Mercer.....	300	8:53	17:29	25:59	34:29	42:56	51:26	59:58	68:29	77:00	85:30	93:54	
L. Nikrent, Buick.....	255	9:07	19:35	27:44	Tire trouble.								
G. Clark, Cutting.....		Accident.											
		LIGHT CAR RACE, 231 CUBIC INCHES PISTONS											
			1	2	3	4	5	6	7	8	9	10	
Fancher, Maxwell.....	229	8:35	17:50	27:05	36:22	44:59	54:05	62:25	68:56	77:20	85:30	93:54	
Bobst, Oakland.....	201.1	7:46	15:03	Skidded off course.									
Fouch, Staver-Chicago.....	201.8	Hit curb at Palisades.											

for-all "the Vanderbilt of the West," and not wholly without reason.

The competitors in the two small car races were sent off in company, but the two big car events were things apart and separate and distinct from each other, which is to say that one was finished before the other was started. Tetzlaff's glory thus was the greater; for after winning the 301-600 class and traveling the 151.506 miles in 124.10 minutes, or at the rate of 73.27 miles per hour, or 49 seconds per mile, he rested about 20 minutes and then in the same Lozier car started in the free-for-all and won it also, covering 202 miles in 169.59 minutes, a rate of 70.80 miles per hour or 50½ seconds per mile. Bert Dingley, driving a Pope-Hartford having a cubical capacity 154 inches less than the Lozier, shared some of the glory with Tetzlaff. Dingley, too, competed in both races and finished a good second in each despite aggravating delays due to tire trouble.

The Santa Monica carnival was more than a daybreak affair—it lasted all night. Santa Monica is near to Los Angeles and is situated by the sea, and therefore more readily lends itself to "highjinks." These "jinks" were of a varied and variegated order. Men who pursued the nimble penny provided all manner of entertainment for the revelers, the revel finally climaxing in setting a huge dancing pavilion afire and in binding and gagging a policeman who sought to interfere with the "fun." These revelers, however, constituted but an insignificant minority of the 75,000 people who witnessed the racing. The great crowd did not even put in an appearance until long after day had dawned and the small car races were finishing. It was the

battles of the big cars that attracted the multitude.

The small cars were sent away at 7 o'clock, a heavy fog preventing the earlier start that had been scheduled. There were but three starters in the "up to 231" class, Fancher in the Maxwell, Bobst in an Oakland and Fouch in a Staver-Chicago. The latter ran wide and struck the banking at a curve on the very first lap and was rendered hors de combat, and on the third lap Bobst, while leading, did likewise. Fancher therefore finished alone. He completed the distance, 101.004 miles in 102.31 minutes, a speed of 59.11 miles per hour.

The starters in the 231-300 class were C. H. Bigelow, Mercer; Clifford McKeague, Durocar; Clarence Smith, Maxwell; Ockerman, Petrel; Robt. Greer, Mitchell; Louis Nikrent, Buick, and George Clark, Cutting. Clark was eliminated almost immediately. He skidded and struck a hydrant on the first round and was seen no more. McKeague, in the native born and Fisk-tired Durocar, led at the end of the first lap—the course was a circuit of 8.4 miles—but on the next round Bigelow in the Mercer took command and the Durocar fell away back. The man in the Mercer ran like a scared deer and on the fourth lap was two minutes ahead of Greer (Mitchell), the second man. Nikrent (Buick) already had quit. Bigelow continued to gain until the ninth lap, when with victory in sight a cylinder cracked and forced him to stop at the repair pits. He restarted, but limped so badly that he was compelled to chuck it. Greer in the Mitchell then began to look dangerous, but on the tenth round stopped at the pits and in restarting stripped his reverse gear and thus lost his chance to

Monica, Cal., Thursday, November 24, 1910

## 202 MILES

11	12	13	14	15	16	17	18	19	20	21	22	23	24
92.5	101.0	109.4	117.8	126.2	134.6	143.0	151.5	159.9	168.3	176.7	185.1	193.5	202.0
75:25	82:12	88:56	95:46	102:36	113:59	120:54	127:40	134:26	141:10	147:54	154:42	161:31	169:59
79:23	98:54	106:03	112:58	119:54	126:41	133:35	142:08	149:09	156:21	163:24	170:23	177:04	184:47
88:04	94:07	102:05	111:16	118:25	127:30	135:51	144:13	152:17	160:36	168:48	177:02	Running.	
81:56	88:31	95:03	101:33	108:01	114:43	127:04	Broke connecting rod.						
112:00	122:12	132:18	142:23	Running.									
105:19	122:17	Valve trouble.											

## DISPLACEMENT, 151.506 MILES

75:30	82:19	89:10	97:07	103:54	110:39	117:24	124:10
77:47	84:45	91:42	100:52	109:26	116:21	122:10	130:00½
90:46	98:53	106:57	115:05	123:11	131:20	Running	

## ON DISPLACEMENT, 101.004 MILES

99:11	101:04
95:58	104:15
105:36	118:48
Stripped reverse gear.	
d cylinder.	

## DISPLACEMENT AND UNDER, 101.004 MILES

94:08	102:31
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triumph. With Greer and Bigelow out, Smith, in the Maxwell, went to the front, and as he was more than three minutes ahead of his nearest rival, McKeague (Durocar), and with but two laps to go, it did not seem that he could lose. But for the third time in the race apparent victory miscarried, but just how it did so it is difficult to decipher. Smith completed his last lap in 8:07, according to all reports, and yet was beaten out by McKeague, who, according to the same reports, finished his twelfth and last lap in one minute and 53 seconds, a manifest impossibility. Fred Wagner, who was "imported" from New York to start the races, it is claimed, failed to flag McKeague at the end of this miraculous round and the Californian made an extra circuit. But whether Wagner was the one who blundered is more than an open question.

With the small cars out of the way, the big crowd began to display real interest when the five "big fellows" lined up for the race for the 301-600 class. They were Tetzlaff, Lozier; Dingley, Pope-Hartford; Bruno Seibel, Franklin; Herbert Brown, Knox, and J. B. Ryall, Apperson. From the word "Go!" which was given at 9:50 a. m., the race was between Tetzlaff and Dingley. For six rounds, despite the Lozier's greater power, Dingley in the Pope-Hartford gave Tetzlaff all he wanted. They reeled off lap after lap in less than seven minutes, or 73 miles per hour, with seconds only between them; but on the seventh round tire trouble forced Dingley to stop at the pits. The tire change was made in lightning time, 38 seconds, but the delay enabled Tetzlaff to improve his already slight advantage. The furious pace

was maintained, Tetzlaff gradually drawing away, until the 12th lap, when he stopped at the pits to change a tire and Dingley appeared to have a chance to close up. But the Michelin tire men whipped off one tire and put on another in the wonderful time of 28.25 seconds—California claims it to be a "world's record"—and before Dingley hove in sight, Tetzlaff was off and in full cry again. And when Dingley did appear, he had two flat tires. It required two minutes to change them, and when the Pope man restarted he was a 100 to 1 chance. He appeared to have lost some of his ginger, and Tetzlaff drew further and further ahead, winning by nearly six minutes and completing the 151.50 miles in 124.10 minutes, a pace faster than which had been recorded but once in the annals of racing. While the Lozier and Pope drivers were engaged in their duel, only Seibel in the Franklin had continued to pursue them. He did consistent work and was still running when the race was stopped. Of the other two contenders, Ryall (Apperson) had gone down and out with valve trouble on the third lap, and Brown in the Knox had skidded into a tree on the sixth round.

After a short intermission, during which Tetzlaff, no longer unknown, was lionized, the big race, the free-for-all—the Vanderbilt of the West—was called. Tetzlaff and Dingley were among those who responded to the call; Ryall, too, had decided to try again. The new comers who lined up to do battle with them were Frank Dearborn, Fiat; Charles Soules, Isotta; Joe Nikrent, Knox; R. Kenwood, Ohio, and Van Valin, Only, the latter the single cylinder car with a five-inch bore and 10-inch stroke. The

previous battle between Tetzlaff and Dingley had whetted the public appetite, and with two foreign cars, bigger than any of the Americans, there was imparted an international flavor and there was promise of even more stirring times, although there were many who thought the Lozier and Pope-Hartford were too heated and "tired" to repeat. Tetzlaff, flushed with his new honors, at once took the lead, however, and held it for two laps, when both Dearborn in the Fiat and Dingley in the Pope headed him, but not for long. The Fiat had trouble and fell back to fourth place, while Tetzlaff repassed Dingley. His leadership was never thereafter seriously threatened. He won with nearly 15 minutes to spare. After the Fiat had recovered from its bad spell, Dearborn drove it like a demon. He flashed the seventh lap in 6:29, the fastest lap of the day, and at the rate of 78 miles per hour, but despite his furious pace he gained slowly. Tetzlaff and Dingley in their "tired" ears were "going some," too. It was not until the 12th lap, when Dingley stopped to change a broken valve, that Dearborn overtook him. It was on that round that the other foreign car, Soule's Isotta, quit with a broken connecting rod; on the 18th round, the Fiat itself succumbed to the same trouble. Valve trouble already had stopped Ryall's Apperson and Kenwood's Ohio was too far out of his class to figure seriously. Whether the Only car, with its big one lung, can raise a gallop was not demonstrated. On the very first lap it broke its connecting rod and was lost to sight. With both foreign cars disposed of and Tetzlaff away ahead, the only question was whether Nikrent's Knox could overtake Dingley's Pope. It was a much larger car and performed consistently, but it was not equal to the task and Dingley again followed Tetzlaff home, while Nikrent was still running two laps behind when the race was stopped. Both Dingley and Tetzlaff stopped only once for new tires. Tetzlaff's double victory was wildly acclaimed, his wife rushing out and hugging him enthusiastically while the crowd cheered and the cameras snapped.

The course had a "death turn" and an S curve, and though several of the cars skidded off the course at such points and despite the high speed at which they flew around the corners, no one was injured.

## Albany Sees Its First Automobile Race.

Two events made up the program of the first automobile racemeet that ever was run in Albany, N. Y. It occurred on Thanksgiving day, November 24, on Island Park track, and the greatest excitement was caused when the spectators swarmed on the track during the 15 miles race which was won by Walter Scherer, Simplex, after a good fight with Grounsell, Buick, in 20:28. The other race, also 15 miles, proved an easy victory for Westcott, Palmer-Singer, in 22:54. Dowery, Courier, was second.

## SWIFT GOING IN ENDURANCE RUN

Californians Require 27 Miles Pace for 48 Hours—Long Test for Trucks Also  
—The Final Results.

Incident to and immediately following the close of the first evening of the Oakland (Cal.) show on Saturday, 19th ult., an endurance contest for pleasure cars occurred, and on the following Thursday, 24th, an endurance run for trucks. Both events were under the auspices of the Oakland Automobile Dealers' Association and served more or less as show features, since the finishes of both occurred at Idora Park, where the show was in progress.

In the endurance run a Mitchell and a Velie car shared the honor of a perfect score. Of the 13 cars that started eight finished, the following contestants suffering penalization: Corbin, 3; Maxwell, 5; White, 5; Maxwell, 17; Buick, 18; Ford, 361; Moon, 762; Cartercar, 2,320. Other starters were the Winton Six, Reo and one electric, a Columbus.

The run, which was of the sealed bonnet, non-stop variety, covered a course of 54.6 miles through San Leandro to Haywards and return, the schedule requiring that the 1,300 miles and more be covered during the 48 hours of the contest, thus necessitating an average speed of a trifle over 27 miles an hour. The electric vehicles, for which a special class was created, were required to make only 15 laps, or 830 miles, at an average of 17 miles an hour.

The first car to come to grief was the Reo, which was forced to stop while on its fourth lap through failure of the ignition. Examination revealed that the insulation on a spark plug wire had burned through, and the car was withdrawn. The Cartercar, had the misfortune to be ditched during Saturday night, and emerged with a sadly battered wheel, and by the time a new wheel could be obtained four hours had been lost. The car was kept in the contest, however, and made up three of the four hours before the end of the contest. Other sufferers during the earlier stages of the contest were the Moon and Buick. The faults were minor ones in both cases and the delay was not serious. On the 18th lap the Ford car was halted after checking in, it being necessary to break the seals and raise the hood in order to remedy the difficulty.

The fastest lap of the contest was credited to the Winton car, driven by Manager Harry L. Owsney of the California branch, which covered the distance in one hour 13 minutes and 50 seconds. The Columbus electric went over the course 12 times during the 48 hours and recharged its battery at San Leandro.

The truck contest was conducted along

the usual lines, account being kept of the cost of fuel and oil, and a ton-mile cost figure being deduced from this and the net load carried. Nine non-commissioned army officers served as observers, thus lending a semi-official air to the event. The contest started from San Francisco over the San Jose road, returning from that point to Oakland. Eight hours and a quarter were allowed to cover the 100 miles of the course, penalties being assessed for all stops save those for tire repairs.

Five trucks achieved perfect technical scores, with the following operating costs per ton-mile of effective work: Gramm, 1.23 cents; Frayer-Miller, 1.36 cents; Autocar, 1.46 cents; White gasoline, 1.53 cents; Hart-Kraft, 6 cents. The remaining four vehicles were penalized, their costs, irrespective of road penalties, resulting as follows: Avery, 1.45 cents; Rapid, 1.78; Brush, 3.16; Cartercar, 4.75.

### Outlook's Idea of Motoring Philosophy.

While a number of clergymen, and others of less "saintly" occupation, are decrying against the increasing popularity of the automobile, and prophesying dire things on account of the extravagance shown by the American people in buying so many cars, there are others who look at this matter of automobile popularity in an entirely different way. The Outlook, of New York, in its November issue, contains a few words on the "Philosophy of Motoring" and comes to the conclusion that "what we want in this world is Life!"

"What gives the most life for the money is the best bargain," it says. "It is not necessarily scandalous that people should scrimp on houses and clothes in order to have more to spend on automobiles. There is nothing sacredly edifying about having more house than you need and sweating to maintain it. Neither is there so very much sanctification in store clothes. Usually every new luxury that we add to our apparatus of life increases the burdens that bend our backs; but this new luxury that goes by gasoline seems disposed to make a place for itself by crowding some of the other luxuries off. That shows spirit. If the automobile and the house are going to compete, give them both fair play and let the fittest survive."

### Marie Herself at Last Buys a Car.

Having exhausted her extensive vocabulary of denunciation of the "brutality," "selfishness," "vulgarity" and "Philistinism" of automobile owners, Marie Corelli, the novelist, has bought one herself. It is a powerful car capable of at least a mile a minute, and as Miss Corelli "has writ" that no automobile should be allowed to run faster than 12 miles an hour and should go much more slowly when passing through towns and villages, it is assumed that she has taken to automobiling to show motorists just how a racing car should be run.

## IMMENSITY OF GASOLENE OUTPUT

Statistics Showing the Enormous Expansion of the Industry—Great Growth During the Last Few Years.

As reflecting the tremendous growth of the automobile industry, besides indicating increased use of gasoline for other purposes of an industrial nature, it is explained that from 1903 to 1909 the output of this commodity was exactly doubled, while the output for the year 1910 is expected to show a considerable increase over that of last year. The total production of 1909 is given on good authority as 9,600,000 barrels of 50 gallons each, including the product of all refineries in this country, which, considering that only a few years ago gasoline was a by-product of illuminating oil manufacture and considered almost worthless, indicates the basis for the rumors of its supremacy in the field. At a conservative average figure, the first-hand value of the total production of gasoline and naphtha is given at \$48,000,000 for last year, based on an estimate of 10 cents per gallon.

That the demand for gasoline does not exceed that for the heavier illuminating oils, however, is shown by the figures for the production of crude petroleum for the same period, which amounted to 186,739,500 barrels of 42 gallons each. Only a small proportion of each barrel of crude oil is available in the form of gasoline, by far the greater part of it being converted by distillation into the illuminating oils. Hence it follows that the growing demand for gasoline is causing the oil producers more or less anxiety. Indirectly it may be said to have been instrumental in causing a drop of a cent and a half a gallon, or 75 cents a barrel for domestic distribution, while for export the decline has amounted to \$1 a barrel. Another factor which bears upon the situation is the existence of an "oil war" abroad, to which is attributed a sharp decline in the exports of illuminating oils.

As indicating the growing market for gasoline the production of crude oil and gasoline in the United States from 1900 to 1909, as furnished by the statistical department of the Standard Oil Co., is shown in the following table, expressed in millions of barrels:

Year	Crude Oil Millions of Barrels (42 Gallons)	Gasoline Millions of Barrels (50 Gallons)
1900	63.6	3.6
1901	69.4	4.1
1902	88.8	4.6
1903	100.5	4.8
1904	117.1	5.2
1905	134.7	6.0
1906	126.5	6.3
1907	166.1	6.8
1908	179.6	7.6
1909	186.7	9.6



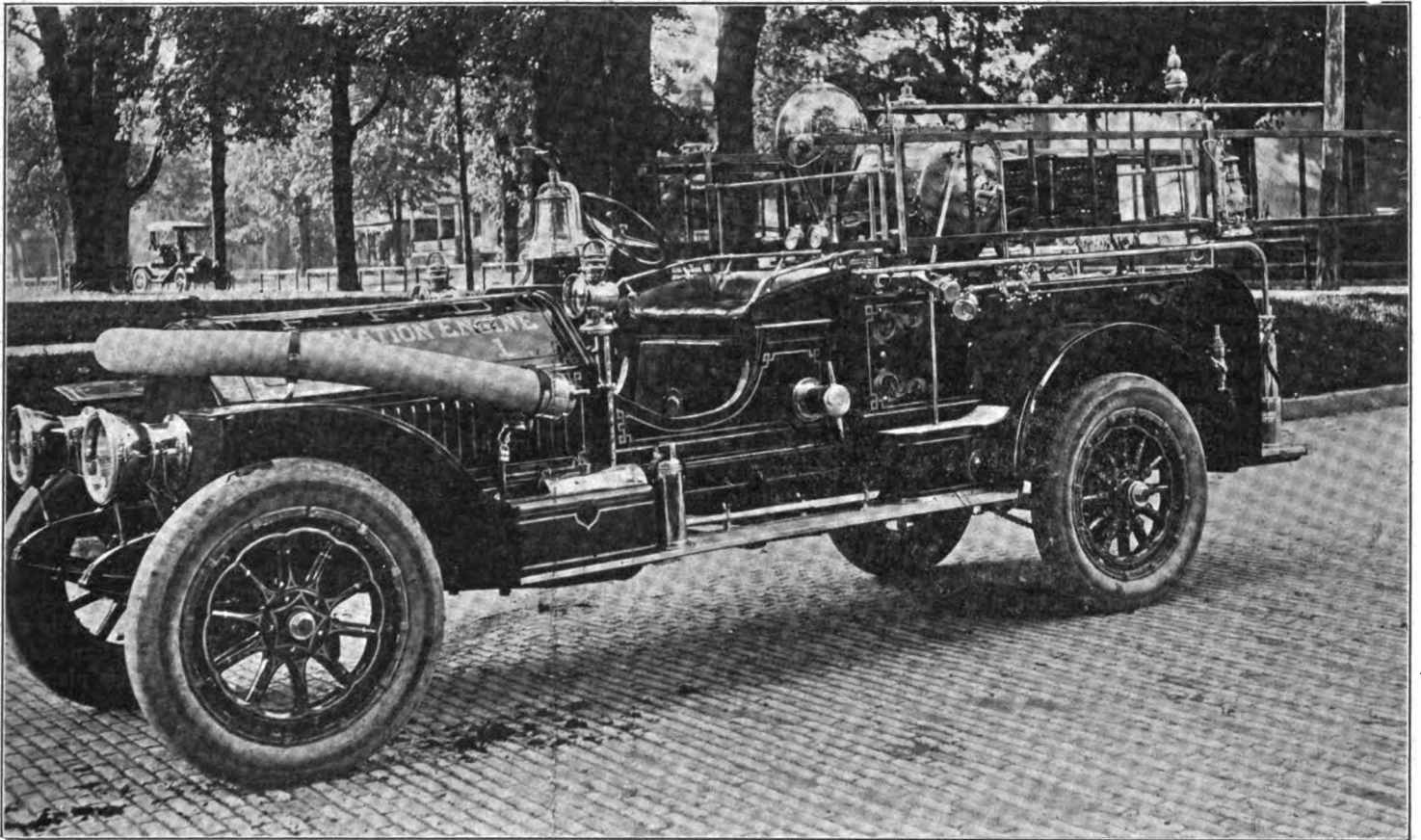
## Work and Worth of the Gasolene Fire Engine

Lansing, Mich., which was one of the first cities in the United States to make use of the motor fire engine, has had such gratifying experience that the chief of the Lansing fire department, Hugo R. Delfs, believes that within three years there will not be a horse remaining in the service. He expressed the opinion at the recent

firemen. This made a weight of 8,000 pounds. We made the run over extremely bad roads (slush, ice and snow) in 28 minutes. On our arrival we found three two-story buildings on fire. We dipped into a small swale about 700 feet distant, and in a short time we had the fire under control. Had we to depend on loading a steam en-

pany arrived. This was an actual occurrence in our city, and I know of other cities that have had similar experiences, and I think this can be called effectiveness.

"You will hear the question 'Do the motors always start when an alarm comes in?' They certainly do. Lansing has yet to have the first failure of her motor appa-



THE MODERN FIRE ENGINE UP-TO-DATE.—FREMONT (OHIO) FIRE ENGINE WITH FISK REMOVABLE RIM EQUIPMENT

convention of the International Association of Fire Engineers, where he read an interesting "paper" dealing with the subject.

"In corresponding with the chiefs of different cities using automobile apparatus, I find they are all high in their praises, and all state there is no question about the adaptability of this kind of fire fighting apparatus to any department," he said. "I know this to be the case in my city—the automobile combination wagon fits perfectly, and is adaptable in every case, any time, any place and in all kinds of weather.

"On November 22, 1909, our city had a call for help from the village of Bath, Mich., 10½ miles distant from Lansing. We responded with our automobile fire engine taking 1,500 feet of 2½ inch hose and five

firemen. This made a weight of 8,000 pounds. We made the run over extremely bad roads (slush, ice and snow) in 28 minutes. On our arrival we found three two-story buildings on fire. We dipped into a small swale about 700 feet distant, and in a short time we had the fire under control. Had we to depend on loading a steam en-

gine on a railroad train, the fire would surely have wiped out the village. We made the return trip in 27 minutes. This, to me, clearly demonstrates adaptability.

"In commenting upon the efficiency of the automobile apparatus I can give a few comparisons which I think will thoroughly convince you of its effectiveness. Suppose you had a fire call 24 blocks from your fire station (equipped with a motor combination wagon); also suppose another company combination, horse drawn, 12 blocks from the fire, responds to this call. Imagine the automobile combination going by the horse drawn apparatus after they had traveled just six blocks, or half their distance, and then imagine a stream of water on the burning building and fire practically under control when the horse drawn com-

paratus to start, and with the exception of two accidents, has never failed to get to the scene of action. Accidents, I assure you, may happen to automobile apparatus just as well as to horse drawn apparatus, but I do maintain that accidents to automobile apparatus should not be as frequent as to horse drawn apparatus. My main reason is the perfect control one has of the automobile apparatus, and with the reports I have received from cities using automobile apparatus, I am convinced to a certainty that the automobile combination wagon is most efficient.

"Time is essential in getting to the scene of the fire, and one would imagine this would be compensation enough for any municipality, but municipalities are looking for economies as well, and there is an

economical feature to the motor fire apparatus. I will give you a report as to cost of maintenance since the day our city installed motor apparatus.

"The automobile fire engine, built by the Webb Motor Fire Apparatus Co., has a 60 horsepower, six cylinder motor (Olds), equipped with a rotary pump, with a capacity of 650 gallons per minute (plug pressure), carrying 1,000 feet of hose, axes, tools, suction pipes, etc., placed in service December 12, 1908, and during the 19½ months responded to 242 fire alarms traveling 367 miles, and to 35 exhibition and test runs traveling 69 miles; pumping at actual fires 29½ hours, and at exhibitions 5¾ minutes. Cost to maintain (for gasoline, cylinder oil, grease, spark plugs, recharging, storage batteries, etc.) was \$77.80 or 14 cents a day; and the cost inclusive of two accidents of \$296.77, was 64 cents a day. The tires, notwithstanding the fact they have been in service nearly 20 months, show no material wear and never had a blow-out or puncture.

"The automobile chemical (combination) wagon, placed in service November 22, 1909, was built by the Olds Motor Works, and has a 60 horsepower, six cylinder motor, with a chemical capacity of 120 gallons. It has responded to 141 fire alarms, traveling 226 miles, and to seven exhibition runs, traveling 20 miles, discharging 4,542 gallons of chemical. Cost of maintenance (for eight months), \$34.17, or 14 cents a day. The tires on this automobile are in excellent condition; they never have given any trouble whatever.

"The chief's car (Oldsmobile Special) has a 40 horsepower, four cylinder motor and was placed in service December 12, 1908, and during the 19½ months responded to 256 alarms, and was used for all other business connected with the department (visiting sub-stations daily, inspections, etc.) traveling 4,475 miles. Cost of maintenance (for gasoline, re-charging storage batteries, spark plugs, cylinder oil, tire repairs, etc.), \$168.15, or 29½ cents per day. Adding these three pieces for a period of 19½ months would mean a total of \$576.89. To accomplish the same work using horses, you would require eight horses, which cost to maintain (for oats, hay, bedding, veterinary bills, harness repairing and shoeing) about \$18 a month per horse, amounting in all to \$2,880, or a saving to the city of \$2,231.11 by using motor apparatus. We also save the salary of two drivers, one on the steam engine and one on the accompanying hose wagon, which would amount to approximately \$2,730. Out of the eight horses mentioned you would lose one by death, accident or unfit for service costing \$275, and this would nicely keep up your tire and repair bills. By summing all up we have a grand total in favor of the automobile apparatus of \$4,961.11. Think of a saving like this for a small city and what it would amount to in your larger cities,

and you cannot but agree with me that it is wonderfully economical.

"A word in regard to the purchasing of automobile fire apparatus: select only such machines as have sufficient horsepower, not less than 60 for combination wagons and chemicals, and not less than 90 for fire engines, or more if you can get it. The more horsepower you have the more efficient work your machine will accomplish. Also a word in regard to the chauffeurs who handle the automobile apparatus. Pick out men who have had large experience. This is one of the most essential things to have men of this kind. You cannot expect results by allowing a man to drive a car around the block and then say he is fit to drive automobile fire apparatus, and I maintain he should be the best that money can hire.

"Our city is so well pleased with her automobile apparatus that I can safely predict that we will have no horses in our departments within three years. Some months ago our city contracted with the Webb Motor Fire Apparatus Co., and the Olds Motor Works of our city for another automobile fire engine; capacity of pump to be 900 gallons, motor to be a 1911 model, 90 horsepower, six cylinder 5x6, which were delivered October 15th. With this new engine we are capable of delivering 900 gallons of water per minute (plug pressure) and this, it seems to me, is ample capacity for most any fire department.

"I firmly believe that automobile apparatus will take the place of the horse drawn apparatus, and when it becomes universally used that the enormous fire waste in the United States will be decreased materially. It is a subject of vast importance to the fire service of America."

At the convention in Syracuse, at which Mr. Delfs gave voice to these opinions and experiences, several other fire chiefs also substantiated his views. H. L. Marston, of Brockton, Mass., said that in his city last winter, a motor driven combination chemical wagon had given good service when the snow was 10 to 15 inches deep; it had been in service eight months, had answered 195 alarms, and the operating cost had been but \$30.25. The cost of up-keep had been nothing, as the wagon had required no repairs and the original tires still were in use. J. F. Runyon, chief of the Morris town (N. J.) fire department, pointed out another direction in which automobile apparatus prevents loss:

"It seems to me that with the advent of the automobile driven fire apparatus the automobile straight chemical engine should be more in evidence than it has ever been in the past," he said. "With such an engine you can get to a fire twice as quickly and thereby give twice as good service as with the horse drawn apparatus. We have an automobile chemical engine in our department, and our alarms have been almost double what they were in the past, and

even with such a condition our actual fire loss is just about one-half what it was with a lesser number of alarms. We have had a horse drawn chemical engine for about 15 years, but now we do much better with the automobile chemical engine, because we get there so much quicker. In our city we used to have considerable water loss at fires, but when you get there quickly with a chemical engine you can put it out and save that loss in many cases. I therefore think that with the automobile chemical engine you are better equipped than ever to prevent water loss at fires."

#### Accident to Car Assists Owner's Creditors.

That accidents and newspaper reports thereof sometimes have peculiar consequences was demonstrated last week when a touring car which had been wrecked and deserted in Montclair, N. J., was seized at the instigation of a New York publishing house which held a judgment against the owner, Bert A. Rich, of New York City, and which had been seeking to discover property on which it might levy. After the car had been seized, Rich informed the lawyer who had served the writ of attachment that there was a chattel mortgage in New York against the car which must be met first. The New Jersey seizure was proven legal, however, on the ground that chattel mortgage laws do not obtain where property has been transferred from the county in which the mortgage was issued.

#### Some Tall Roadways Planned in Texas.

Penetrating the heart of the 160,000-acre ranch owned by Charles P. Taft, brother of President Taft, a 150-mile automobile roadway is to be constructed from San Antonio to Corpus Christi, Texas. It is planned to make that part of the road which passes through the Taft ranch one of the finest automobile speedways in the country, as the land is almost level and will allow of an almost 30 miles straightaway. Tentative plans also are on foot for the construction of other automobile roads in this section, a 175 miles road between Corpus Christi down the Gulf coast to Brownsville being the most important of those contemplated.

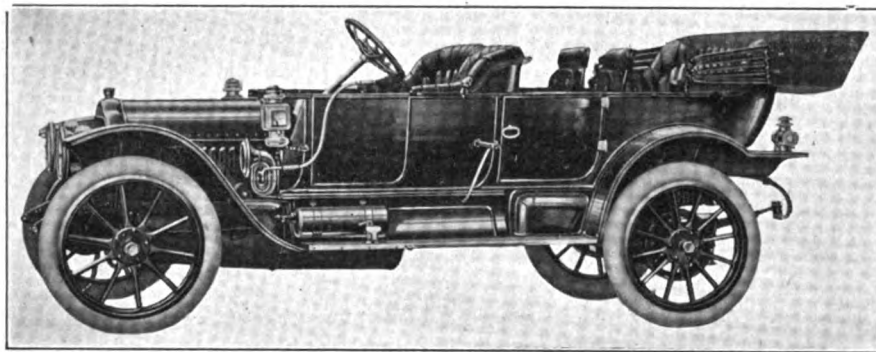
#### Novice's First Trip Covers 8,000 Miles.

One of the most unusual long journeys ever made by an automobile was completed last week when George Harder, of Sacramento, Cal., arrived in San Francisco after having piloted a friction-driven Cartecar a distance of more than 8,000 miles. The trip was unusual in that Harder never had driven a car before he left the Cartecar factory in Pontiac, Mich., where he took delivery of his car; he learned to drive with the help of an assistant who accompanied him as far as Chicago only. At Chicago Harder was joined by two friends, and the party went sightseeing, making long detours on the way to the coast.

**WHITE GAS CAR WITH MORE POWER**

**Cleveland Company Launches Model of 40 Horsepower but Suggesting More—Other Details Same as the "30."**

While early announcements of the manufacturing plans of the White Co., of Cleveland, O., indicated a continuance of its former product without substantial changes, it was then stated that at about this time an additional model would be introduced which would extend the gasoline line and fulfil the requirements of those who demand a higher power range than the 30 horsepower model is capable of sat-



THE NEW WHITE 40 HORSEPOWER GASOLINE TOURING CAR

isfying. That model, which now is ready for marketing, proves to be in all visible characteristics a counterpart of the White "30," save that it is rated with ten more horsepower in its power plant and has a seven passenger body. That it will turn out to have a much more powerful motor than would ordinarily be expected from its builders, may be inferred from the early statements concerning it, in which it was described as of 40-60 horsepower.

As is the case in the other model, the engine is of the four cylinder "L" type, with valves located on one side, and has the 3 point suspension. Cooling is effected by means of a centrifugal pump circulating the water through the honeycomb radiator and the jackets. A Bosch high tension magneto supplies the current for the ignition. The motor is lubricated with oil forced by plunger pump to the main bearings, by splash to cylinder walls, wrist pins and connecting rod bearings.

A leather faced cone clutch and the selected type of transmission are employed, the latter allowing four speeds forward and one reverse. The transmission is located amidships. The rear axle is of the semi-floating type.

A channel section 5 1-16 x 1 3/4 x 3-16 inches of nickel steel forms the frame.

Semi-elliptic springs are used in front and three-quarter elliptic in the rear. On the front wheels of the seven passenger car 36 x 4 inch tires are used, and those on the rear are 36 x 4 1/2 inches, while the five

passenger car has tires 36 x 4 inches all around. The wheel base is 120 inches.

**Jack that Permits of Quick Work.**

Either the front or rear wheels of an automobile may be raised very quickly from the floor of a garage by the use of a jack very similar in character to that employed in most of the important road races. This jack is made of a piece of 3/4-inch pipe, bent into a U-shape to form the handle; the ends are slipped over two forgings similar in shape to bell cranks and attached to the axle supported by cast iron rollers at either end.

By simply placing the jaws under the axle and pressing the handle to the ground, the wheels are lifted and securely held

while the necessary work is being done. One or both of the wheels may be raised by using either one or both of the jaws, the leverage obtained with the use of a long handle making it comparatively easy to lift either end of the car. On account of its size it is not liable to be misplaced or carried away. Other than the rollers it has no moving parts.

**How to Keep Hub Caps Secure.**

Although hub caps of motor cars work off now and again, there are two ways of ensuring that they will not loosen when properly put on. If the cap screws up flush with the metal ring of the hub a small center punch hole at the point of contact will prevent it from coming unscrewed. If the cap overlaps the ring, drill a hole into the ring and in the cap tap out and place a small set screw that just comes flush with the cap. The screw hardly will be noticed, and will save trouble and expense later.

**Putting a Nut to Extemporized Use.**

When a nut has been lost and another of the same size is not at hand a temporary repair often may be made with a nut that is a trifle too large by hammering it till it is slightly oval.

**To Prevent Oil from Sticking to Tin.**

Before filling a tin measure with heavy oil, rinse it out with gasoline. This will prevent the oil from sticking to the sides.

**TREND TOWARD THE FIXED SPARK**

**Its Increasing Use Indicated at the London Show—How it Compares With Hand Controlled Ignition.**

That the fixed spark is gaining in favor appears to be indicated by the number of cars equipped with this form of ignition which were exhibited at the recent Olympia Show in London and by several converts in this country. At the Olympia no less than fifteen different makes of cars were equipped without a hand controlled spark.

As to whether or not it shall be the fixed or the manually controlled spark, there are so many directly opposite views that to adhere to any particular rule is almost out of the question.

The hand lever mounted upon the steering wheel of the average automobile is regarded by some manufacturers as unnecessary, as is often shown by its absence on at least one or more models of their cars; yet many practical men do not approve of the fixed spark because it often limits to some extent the number of revolutions or the control of an otherwise very satisfactory motor.

There are two reasons at least why the fixed system is advocated; one, that in a great many cases the driver is not capable or else he is too shiftless to handle the spark lever in the proper way; the other, that a magneto possesses inherent qualities of self-timing that render hand control unnecessary. In the first case, the type of a man at the steering wheel governs the design, and as manufacturers cater to varying classes of customers some of them take notice of the shiftless sort and of the unmechanical man to whom anything that is automatic and takes care of itself appeals strongly and is most desirable. The second reason is technical and lies in the fact that a magneto does, after a fashion, time itself, owing to the increased voltage given by a higher number of revolutions, causing a decrease in the firing lag and a proportionate increase in the time of the maximum explosive pressure.

It is less certain, however, that the range of timing possessed by the magneto necessarily synchronizes with the range of revolutions possessed by the motor. There is no cause to think that these ranges coincide as there is no connection between the two. Because of this doubt, mechanical timing seems desirable, although for commercial vehicle purposes the absence of the hand spark control lever appears to be preferred.

For the benefit of those who are not wholly familiar with the magneto construction it may be well to explain that the most common method of timing is to vary the

point at which the primary circuit is broken. This is accomplished by causing the stationary part of the circuit breaker to rock around the armature shaft. The difference between the fixed and the more general form of ignition, therefore, consists chiefly of the omission of the mechanism necessary to rock the timer. To this extent it is a mechanical simplification, involving no change in the electrical system while the motor is running at its normal speed. At extremely high or extremely low speeds, however, the fixed spark results in less satisfactory timing than is obtainable where the manual control is resorted to.

To permit the elimination of the manually controlled lever and yet allow the motor to run without the loss of any of its efficiency, some magnetos are made practically self-timing, affording mechanical timing of the spark, which can be adjusted to synchronize with the range of revolutions possessed by the engine, and requiring no action by the driver to produce the effect. A favored way of accomplishing this result is to have a fly ball governor, which alters the angular position of the armature in relation to its drive, thereby automatically retarding or advancing the current wave.

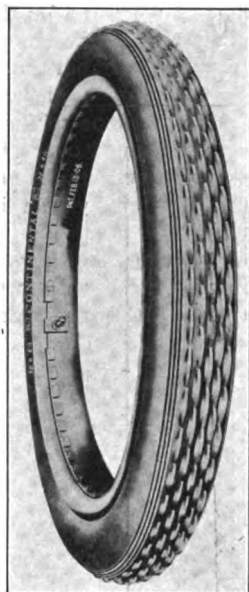
#### Why Valve Grinding Was Unsatisfactory.

"In grinding valves the other day," remarked the man who does his own repairing, "I had a rather funny experience. I had removed a valve and spring and was proceeding in the usual way, when, after one or two examinations of the valve, I noticed very little improvement in its general condition. An investigation showed the valve stem just touching the push rod and of course preventing the valve from seating. Hereafter when attempting such a job I will make sure that there is plenty of clearance between the valve stem and the push rod—both before and after the operation."

#### Continental Evolves a Non-Skid Tread.

Prevention of skidding in all weathers and on all sorts of road surfaces calls for such a variety of properties that it is extremely difficult to combine them all in a single form of tire surface, but in its new "Traxion" tread the Continental Caoutchouc Co., New York City, believes that that highly desirable feature, an all-season anti-skid tread at length has been achieved. The tread is constructed with a large number of integral rubber projections in the form of tapering disc-like protruberances which are arranged in staggered rows about the circumference of the casing. As the projections are molded into the tread itself, they can neither work loose nor tear out; nor are they subject to rapid wear. Their nature permits them to be used on dirt and macadam roads where steel-studded treads are prohibited, while their natural resilience gives them the necessary

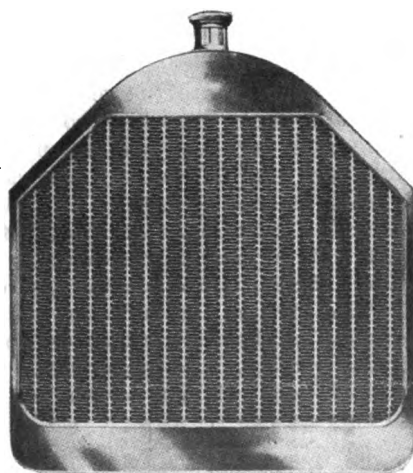
yielding effect essential to securing a grip on hard and smooth surfaces where studded surfaces would be likely to slip. The corrugations grip in both directions, tending to secure ample traction as well as to pre-



vent skidding. The Traxion style of tread is produced in clincher and "Q. D." types and at a reasonable advance in price over plain tread casings, to cover the increased cost of manufacture.

#### Radiator Without Circulating Tubes.

Something new in radiator construction is contained in the Candler Special recently placed on the market by the Candler Radiator Co., Detroit, Mich., its novelty resting in the fact that instead of having circu-



lating tubes, vertical flows only are provided. Horizontal I-beam tubes, assembled to avoid leakages, are placed with the sides up and down and laid so that the core runs the depth of the casing, the ends forming the front and back of the radiator proper. The walls of the I-beam tubes form the vertical water passages, bringing the water in direct contact with the rad-

iating metal as the air rushes through the cores. Headers, or the metal used to form the bottom of the top tank and the top of the lower tank, have been done away with and the radiators are simply one rigid mass of steel which, the makers claim, lessens greatly the liability of leakage.

#### Carburetter Not Always at Fault.

The carburetter is blamed, often improperly, for the irregular running of an engine when the fault lies elsewhere. If the carburetter is doing its work, the better part of wisdom is to leave it alone, as in most cases tinkering with it will not help its efficiency. Until the other parts of a motor have been gone over thoroughly in the effort to locate trouble it is not of much use trying to tune up a motor by making changes in the carburetter.

The piston rings must be compression tight, the valves free in their guides and ground in their seats, the timing correct, the ignition generally in proper condition, the plugs in good order and their points set correctly. These conditions are necessary, particularly for ease of starting and slow, steady running. Misfiring on starting often is laid to an excess or lack of gasoline when the ignition is at fault. When the throttle is opened suddenly the feeble spark from a magneto which has been allowed to get out of order encounters the full compression, which opposes the passage of the spark. It is well to attend to the magnetos according to the manufacturers' directions as to the proper gap between the points, the correct setting of the high tension distributor and other parts liable to cause trouble.

To enable any carburetter to do its best work and give full flexibility to the motor, it is essential that the ignition be perfect throughout the whole range of engine revolutions.

#### Springs that Affect Seating of Valves.

Not all valve springs that are the same diameter throughout their length are equally square at both ends. A spring which is not true in this respect will cause a valve to seat unevenly, and the resultant loss of compression may be difficult to trace. This is especially true of the later model engines in which heavy springs are used. A steel square will detect any discrepancy at once.

#### When Tops Accentuate Small Noises.

A car which is slightly noisy when driven with the top down always will sound noisier when the top is raised. This is because the top when taut tends to "carry" and accentuate minor rattles and squeaks.

#### Filling Grease Cup in Cold Weather.

In cold weather stiff oil and grease should be heated somewhat, although not melted, to facilitate the filling of grease cups and spring oilers.



## Seeking a Cheaper Substitute for Gasolene

For the most part modern carburetter development has been directed toward the complete vaporization of the fuel, with the idea of delivering to the cylinders of the engine a thoroughly carburetted and perfectly homogeneous mixture. At the same time it is noteworthy that other views of the carburetter problem are entertained, one of the most important being that in which the retention of a portion of the fuel in globular form is deliberately contemplated. A noteworthy exponent of this rather original idea is Robert W. A. Brewer, the well-known English scientist, the particular theory in this instance being applied to the use of the heavier liquid fuels in conjunction with gasolene. Instead of attempting the complete vaporization of the entire liquid, only the lighter fractions are gasified, the remaining constituents being carried over in the globular form to be evaporated by the heat of the explosion and burned in an excess of air.

In seeking to render practicable the use of a heavier grade of fuel than commonly was employed for automobile propulsion, Mr. Brewer at first made some tests with paraffin and petrol as the commercial grades of kerosene and gasolene available in the British Isles are known to the trade. Special mixtures of various grades of oil were then tried and more or less successful results obtained, as was noted in these columns at the time. Continuing the experiments with great care, a number of important conclusions have been reached which are of particular interest chiefly as paving the way for future developments of direct importance to the motor world. In recounting these researches through the medium of the Autocar, Mr. Brewer renders some important observations bearing on the specific gravity question.

"Although the range of specific gravity may be over several points, it does not necessarily follow that the fractional distillation varies in like manner," he remarks. "Considering spirits now from the petroleum base, the various fractions come off at fairly regular intervals in the best known two brands, namely, the s.g. .710 and the s.g. .760. But, taking for instance Shell spirit and Shell Borneo spirit for comparison, we find that the first drop comes off the heavier at 6 degrees lower temperature than it does off the lighter, but that in certain stages the heavier spirit behaves somewhat more erratically, so that during its earlier distillation the temperatures are higher at which an equal fraction is distilled; but when about 70 per cent. of the whole has been distilled off the tem-

peratures at which the remaining fractions are distilled are somewhat lower in the heavier than in the lighter variety. Now if we are dependent upon the evaporation of the petrol alone we see that any spirit which distils completely between, say, 50 and 150 degrees Centigrade will behave in a similar manner under similar conditions, whatever its specific gravity may be. We find, however, that if we treat a petroleum through a larger range of distillation, and thereby obtain a spirit with a higher specific gravity than .760, viz., .780, we must come to temperatures considerably higher than 150 degrees Centigrade, and the resulting spirit will not behave exactly as the .760 spirit, owing to the presence of those particles which have a higher boiling point.

"Now, it is in order to deal successfully with the heavier particles in a motor fuel that mechanical action has to be applied, and it was in the case of the tests which were referred to in the earlier part of this article the mechanical action upon the paraffin which caused its possibility for combustion in the engine cylinder. The theory is that the heavier particles which do not readily evaporate are carried forward in the induction pipe in the form of a fine spray, and, assuming that the temperature does not fall in any part between the carburetter and the engine, these particles will be carried forward into the engine cylinders, and there rapidly compressed and ignited in the suspended form in the presence of a partially carburetted air.

"There is a limit as to the amount of suspended fuel which may be utilized in this manner, for we find that a point is reached when certain particles will be carried right through the engine system, and if the exhaust is trapped and condensed we find portions of unburnt fuel here which have been carried through in the manner indicated.

"Turning now to a totally different fuel, we will consider tar benzol. Now this fuel has a much smaller range of boiling points than either of those previously referred to, namely, between 50 and 150 degrees C. for 90 per cent. benzol. It is obvious, therefore, that a fuel with boiling points within these limits will be very volatile, and, as far as carburation is concerned, will give no trouble at all in the ordinary apparatus designed for petrol, with the exception, of course, that, owing to its higher specific gravity, namely, .875, a slight modification in the float chamber, such as the addition

sary in order to keep the petrol sufficiently high in the jet.

"There is one other property of these fuels which becomes very useful to notice in testing, and which has a direct bearing upon the fractional distillation, and that is the rate of evaporation of standard small specimens of these fuels under different conditions. The writer has made a practice of testing all these types of fuels by means of air currents of different velocities and temperatures passed over strips of white paper which are held against the light. It is then easy to see exactly when the particular fuel has completely disappeared as the light at that moment appears with equal intensity right across the paper in the nature of a grease spot photometer. In this manner the behavior of the petroleum spirits of specific gravity of .710 and .760 and the 90 per cent. benzol, as will be gathered from a perusal of the following table:

Evaporation Table.

Air Velocity	Temp. of Air.	Fuel.	Time of Evap.
Still .....	75° F.	A	85
		B	90
		C	75
200 ft. a minute..	80° F.	A	35
		B	38
		C	38
320 ft. a minute..	130° F.	A	25
		B	25
		C	30
460 ft. a minute..	145° F.	A	21
		B	20
		C	21

A = .715 s.g. Shell.

B = .760 s.g. Borneo.

C = .875 s.g. 90 per cent. Benzol.

"In order to anticipate what one might expect to obtain from different fuels of the same class, that is, produced from the same source, it is as well to compare them from a standard basis, and for this reason the

$E^V$

writer has constructed his ——— formula, 1,000 C.

so that this might be done, and, when this value is found for any particular fuel, it then becomes a fairly easy matter to deduct what one ought to find in practice as the fuel consumption for various car speeds. It does not necessarily follow that different fuels compare directly as to their values under this formula. That is to say, differences of speed are sometimes more marked, and the formula in some cases exaggerate the actual relative effects of certain fuels.

"Taking the heavier petrols now, the following table gives some results of the writer's experiments, and shows that the Borneo .760 spirit gives a greater all-round

efficiency in burning than does either the lighter or heavier spirit. This can be accounted for in the following way. The .760 spirit, as has been before shown, contains fractions which distill over the same range of temperature as the .710 spirit, but, owing to a greater percentage of carbon present in this spirit than in the lighter or American spirit, it is enabled to take up more air, and, owing to its greater weight, a gallon of the heavier contains more thermal units than the lighter spirit.

Commercial	.710	s.g.
Borneo	.760	
Borneo	.770	
Borneo	.780	
Pratt's	.710	1 vol. }
Paraffin	.810	1 vol. }
Benzol	.875	1 vol. }
Borneo	.760	1 vol. }
Benzol	.875	5 vols. }
Borneo	.760	2 vols. }
90 per cent. Benzol	.875	

"Going on to the next fuel, viz., s.g. .770, this was a mixture in equal proportions of the .760 and .780, and here, of course, we find traces of the heavier fractions contained in the .780. It is evident, therefore, that some of these heavier fractions were not consumed as readily as they might have been, and particularly was this noticeable when the engine was running at a slower speed, and, consequently, the mechanical action of the jet was less violent, and therefore did not break up the liquid into so fine a spray as was the case when running at a higher speed. This effect was even more marked when the .780 spirit was used alone; in fact, to such an extent that some of the steeper hills were only ascended with difficulty, the carburetter being without a hot jacket. Figures are shown in the table which give results of very lengthy experiments with mixtures like spirit and paraffin, which were referred to at the beginning of this article. It will be seen that the addition of the paraffin by equal volume increased the mileage per gallon from 18 to 19.5. This was, no doubt, due to the greater weight of mixture per gallon, but it was noticeable that there was a certain amount of waste owing to insufficient heat being applied to the carburetter, also to misfiring at certain engine speeds causing blowbacks in the carburetter, but the results generally were highly satisfactory for such a mixture.

"Following these experiments with fuels of the petroleum base, a number were carried out with the commercial 90 per cent. tar benzol in its ordinary state and also mixed with other fuels, such as alcohol and petrol. Now, with regard to the mixing of benzol and petrol, it is interesting to note what exactly occurs. To illustrate this, two bottles, each containing one of these fuels

at a temperature of 60 degrees F., may be taken, the temperature of the room at the time being 62 degrees F. Now, on pouring an ounce of petrol into a breaker its temperature at once rises to 62 degrees F. An ounce of benzol is now added—the temperature immediately drops to 56 degrees F.

"The whole body of the liquid at once becomes cloudy, and remains so for some ten minutes, the temperature meanwhile gradually rising to 59 degrees F. At this point the liquid commences to clear from

E = miles per gallon.	V = miles per hour.	C = gallons per hour.	Brew- er's equiva- lent.
18	21	1.17	6.8
20.5	22	1.07	9.35
19.5	22	1.13	8.4
19	19	1.0	6.9
19.5	20	1.03	7.6
22.0	20.0	0.91	9.7
25	20	0.8	12.5
26	20	0.77	13.6

the top downwards, and it is noticeable that the temperature of the cleared or upper portion is two degrees higher than that of the clouded portion. When the total mixture became cleared the temperature was again that of the room, i. e., 62 degrees, and apparently the mixture was homogeneous.

"The table gives results of tests, first of benzol and Borneo .760 spirit in equal proportions, and consequently with a large proportion of benzol and Borneo spirit, namely, five volumes to two. These show that, as the proportion of benzol is increased, there is a marked increase in the fuel efficiency, until we arrive at the point when pure 90 per cent. benzol is used. The results of the benzol tests were most satisfactory in every way, and no difficulty was found at any time in starting from cold, nor was there any difficulty in obtaining a very fairly satisfactory complete combustion. Naturally care has to be exercised in order to allow a sufficiency of air, but in the carburetter which the writer uses in his experiments there is an adjustable air inlet right at the top of the jet, which makes this quite a simple matter. Benzol contains about 150 grains of sulphur compounds per gallon, and the presence of this invariably produces an unpleasant odor in the liquid and in the exhaust gases to a very slight extent, and it is somewhat difficult to nullify it by the addition of an aromatic oil. Crude benzol contains 163,680 British thermal units of heat per gallon, as against 157,142 B. T. U. for petrol, and has an explosive range, when mixed with air, of from 2.7 to 6.3 per cent., as against 1.8 to 3.5 per cent. in the case of petrol.

"Referring again to the table, it would be as well to point out one instance of the adaptability of the formula which is em-

ployed; so, taking a factor of a certain fuel and equating it to ten, we have the following results, which agree very fairly with those which have been obtained in actual practice upon the open road with that particular value:

#### Speed and Fuel Consumption.

Fuel Factor = 10.

E = miles per gal.	V = average miles pr. hr.
16	39.0
17	34.7
18	30.9
19	27.8
20	25.0
21	22.7
22	20.6
23	18.9
24	17.4
25	16.0

"The factor ten which is employed in the working out of the above table is that which applies to the .760 Borneo spirit, and by adapting this method to any particular fuel the use of the system becomes apparent.

"Since the writer made these experiments, several others who are interested in the same subject have been experimenting or financing others to do so, and their results agree generally with those which have been here and in other technical journals set out from time to time under his name. The necessity for such work became apparent owing to the acute state of the petrol market, and it is owing to work such as this that a good deal of the stress has been removed, and that prices have been somewhat easier, as other fuels have been shown to be suitable for use for motor car purposes."

#### White to Try Gasolene-Steam Motors.

Working upon the theory that the limiting altitude to which aeroplanes can attain is determined by the working of the engine, it is stated that the White Company has undertaken the development of a combination gasolene and steam engine. As carburetter difficulty usually is experienced at very high altitudes because of the rarification of the atmosphere, it is understood that an attempt is being made to combine the principles of internal and external combustion in a form of duplex motor. Several Antoinette monoplanes were purchased in England some time ago and shipped to the Cleveland factory for experimental purposes, while Hubert Latham, the well-known birdman, is said to have been engaged to take part in the work.

#### Miller's Catalog in New Dress.

Charles E. Miller, the New York supplyman, has issued his 1911 advance catalog. It contains 114 pages describing and illustrating most of the varied line of accessories which he handles, and is characterized by a new and nifty cover in colors, depicting a scene in which motor car, motor boat, motorcycle and aeroplane are brought into happy proximity.

**MOTORS THAT LIGHTEN FARM WORK**

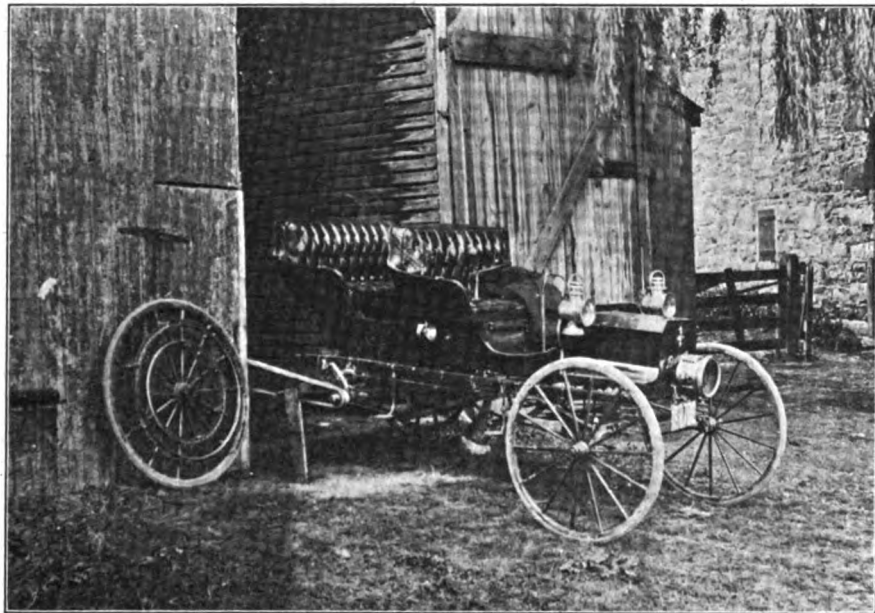
**Two Instances of How They Were Employed for the Purpose—Grind Corn and Saw Wood.**

While considerable effort is being expended in the development of a special type of motor tractor and portable power plant combined to perform the varied operations about the farm for which power is

fit is not only portable but self-propelling and applicable in a variety of different ways add considerably to its usefulness.

**Connecticut Produces 81-Year Old Motorist.**

Abram Cochran, of Elmer, N. J., the 80-year old motorist who claimed the "age honors" and who said he had been "looking for a man of his age who is operating a motor car, but had been unable to find one," can find the sought-for man in Hartford, Conn. He is C. S. Davidson, who

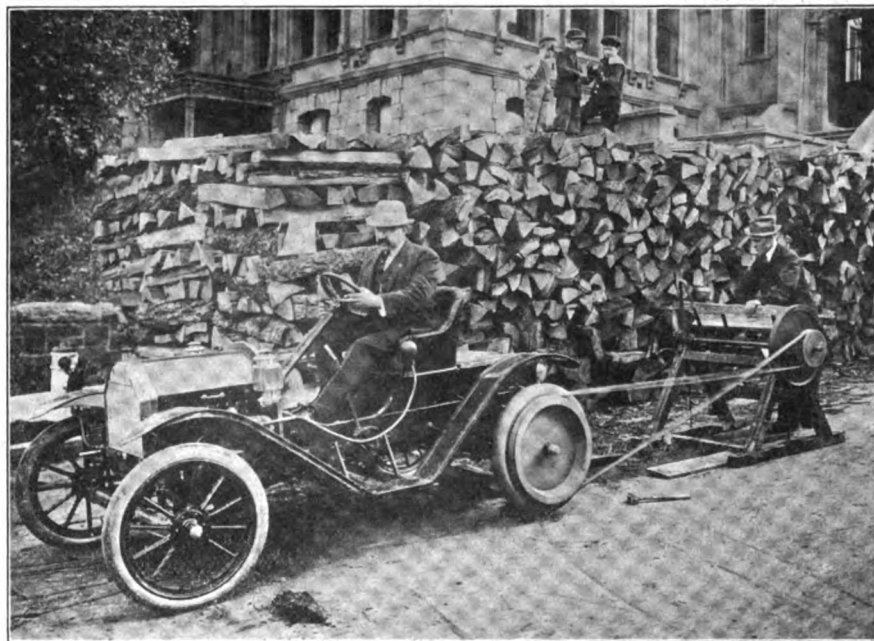


POWER ON THE FARM—DURVEA BUGGYAUT GRINDING CORN

required, for the needs of the average farmer possessed of everyday ingenuity, the ordinary motor car may be made to do multiple duty, the limit of its applicability usually being the limit of his genius. Instances in which the modern substitute for the horse has been put to work while its predecessor would have required to be resting in the stable are numerous, but two recent cases in point furnish the subjects for the accompanying illustrations.

In the first, the owner of a Durvea Buggyaut has applied it to the useful, if prosaic, task of grinding corn. The right rear wheel has been removed, the rig being firmly jacked up and braced against rolling, and a round belt run from the regular driving sheave on the end of the crank shaft to the portable mill on the barn floor. To set up the power plant in this fashion probably required fully five minutes!

In the other illustration the Oregonian possessor of a Brush runabout is engaged in the prosaic occupation of sawing wood, though in a more rapid as well as less picturesque fashion than ordinarily is conjured up by the expression. A simple device for clamping a belt pulley on the left rear wheel, the driving belt, the jack under the axle and the saw table are all the paraphernalia required to convert "everyman's car" into anybody's sawmill. That the out-



POWER ON THE FARM—BRUSH RUNABOUT SAWING WOOD

writes the Motor World that he is 81 years of age and has "operated and cared for his cars for the past six years." Mr. Davidson is a machinist and adds that the runabout he is now driving is better today than when he bought it three years ago.

**REMOVING RINGS FROM PISTONS**

**The Right Way to Go About It to Avoid Breakages—Importance of First Loosening the Rings.**

Careful use of a wooden mallet or a block of hard wood held against the part and struck lightly with a hammer will go far toward reducing the annoyance and expense of piston ring breakage incident to the overhauling of a motor. Many rules have been given for removing and replacing these rings, but none can be applied satisfactorily that does not provide for loosening the ring in its slot. Simply prying up the ends will not serve the purpose; as often as not, it will cause the ring to break.

After the ring has been loosened by tapping it on all sides in the manner indicated it may be removed by any one of several methods, usually with little difficulty.

A very quick and easy way to remove the rings from the piston is with the use of three pieces of tin or thin sheet metal, a screw driver, a hard wood block and a pair of ring tongs. The strips of tin should be cut according to the size of the piston, sufficiently long to be handled right. The ring tongs are similar to a pair of pliers except that they open instead of closing when the handles are pressed together, and

the biting ends are chisel shaped to allow being forced into the space where the ring is cut.

After the piston has soaked in kerosene, hammer the rings with a wooden block to loosen them in case they stick. Force the

ends of the tongs between the ends of the ring in the groove and carefully pry them apart. If they are stuck so tightly as to require the use of a screw driver, insert the latter under one end of the ring and when it has a good hold, twist the handle; this will raise the ring under which a piece of the sheet metal is placed. Use the screw driver to pry the ring further along, with the edge of the piston as a fulcrum, and put another metal strip under. Repeat this operation until the three strips are under the ring at about equal distances apart, when the ring should be free of the groove. After the first ring is removed, the rest will come harder, as they are apt to slip into the grooves of the others if the metal strips are not used. After the rings have

### TESTING FUELS FOR TRUCK USE

**Gasolene, Benzol and Alcohol Compared in French Subsidy Trials—Alcohol Fastest, Benzol More Economical.**

As affording an informing comparison between the relative performance of commercial vehicles using different fuels, the statistics of the tri-fuel contest of the French military authorities, held under the auspices of the Automobile Club of France, last summer, are particularly important. The result of the contest was that six makes of cars were added to the list of those subject to the government subsidy plan, where-

relatively low consumptions and high speeds, when judged by the standards of ordinary commercial practice in this country.

By the terms of the subsidy arrangement the owners of the approved makes of car will receive an initial subvention of something like \$600, and an annual allowance of \$200 for three years. The cars that are thus endorsed, as told in these columns at the time of the initial announcement of awards, are the De Dion Bouton, Peugeot, Delahaye, Panhard and Levassor, Berliet and Vinot and Deguingand. The particulars of the performances of each of the successful vehicles are given in the accompanying table, which has been converted to United States measure. As compared with

TABLE SHOWING RESULTS OF FRENCH MILITARY TRI-FUEL CONTEST FOR TRUCKS

Make.	Total Wt. Pounds.	Useful Load, Lbs.	Oil 1,570 Miles		Gasolene 560 Miles			Benzol 560 miles			Alcohol 450 Miles		
			Total Con- s'mpt'n, Gals.	Miles Per Gal.	Average m. p. h.	Total Con- s'mpt'n, Gals.	Miles Per Gal.	Average m. p. h.	Total Con- s'mpt'n, Gals.	Miles Per Gal.	Average m. p. h.	Total Con- s'mpt'n, Gals.	Miles Per Gal.
DeDion Bouton	13,216	7,280	7.4	211	9.5	59.4	9.4	9.8	57.4	9.7	9.6	58.8	7.6
DeDion Bouton	12,544	6,272	5.9	266	9.5	65.4	8.6	9.8	60.0	9.5	9.7	58.8	7.6
Peugeot	13,104	7,280	10.6	148	10.4	65.4	8.6	9.5	63.8	8.8	10.4	65.2	6.9
Peugeot	13,328	7,504	10.6	148	10.4	66.1	8.4	9.5	60.9	9.1	10.5	63.8	7.0
Delahaye	13,776	7,728	9.0	174	8.6	75.6	7.4	8.2	78.0	7.1	7.7	75.0	6.0
Delahaye	13,776	7,728	10.6	148	8.6	82.6	6.8	8.2	80.4	7.0	7.8	83.2	5.4
Panhard	12,320	6,720	18.0	87	9.6	59.8	9.3	9.5	61.2	9.1	9.8	59.3	7.6
Panhard	12,320	6,720	22.2	71	9.7	61.0	9.2	9.5	59.6	9.4	9.8	60.7	7.4
Panhard	13,440	7,616	23.8	66	9.8	67.3	8.3	9.8	70.0	8.0	10.2	61.5	7.3
Panhard	13,440	7,616	19.6	80	9.7	65.4	8.6	9.9	66.6	8.4	10.2	67.5	6.7
Berliet	12,880	6,720	9.0	174	8.5	75.1	7.5	8.8	71.2	7.9	8.5	76.8	5.9
Berliet	12,880	6,720	9.0	174	8.5	76.2	7.3	8.8	64.3	8.6	8.5	69.9	6.3
Berliet	14,560	8,960	17.2	91	8.3	90.2	6.2	8.5	65.0	8.6	8.3	67.0	6.6
Berliet	14,560	8,960	18.7	83	8.2	91.8	6.1	8.5	67.8	8.3	8.3	84.7	5.3
Vinot	10,976	5,936	7.1	217	9.8	54.6	10.2	9.5	53.3	10.5	9.8	50.2	8.9
Vinot	10,864	5,824	11.6	135	9.8	55.7	10.2	9.7	55.2	10.1	10.3	54.5	8.2
Average	12,992	7,224	13.1	144	9.3	69.4	8.3	9.2	64.6	8.7	9.4	66.8	6.9

been removed and thoroughly cleaned with kerosene, or repaired as the case requires, they may be replaced in the same manner.

#### Marmon Matters Attractively Presented.

Marmon records, Marmon trophies and many of the constructional details of "the easiest riding car in the world" form the basis of the latest literary effort of the Nordyke & Marmon Co., of Indianapolis, Ind., a handsomely printed 16-page pamphlet entitled "Why the Marmon?" In addition to statistics of the racing records made by Harroun and Dawson in the Marmon "32," splendid photographic illustrations of the trophies won by those drivers are shown, and there are enough of them and they are of such varying size and form as to lend even "picture book interest" to the brochure. The answer to the question which forms the caption of the booklet is to be found in the text, and the explanation doubtless will prove of value to all interested in automobiles whether for racing or for conservative touring.

by these owners will receive a regular revenue from the Ministry of War. The figures of the 16 winners, distributed among the half dozen manufacturers, which only just have come to light, reveal striking consistency, and a surprising agreement in the consumption of the three fuels used in the test.

Under the conditions of the trials the machines, under load, were driven a total of about 1,570 miles subject to standard endurance run restrictions. Gasolene and Benzol were used for portions of the route aggregating 560 miles in each case, respectively, while for the remaining 450 miles of the total distance carburetted alcohol was employed. By this means a standard method of comparison for the fuels was established, and at the same time the suitability of the various motors to work under varying fuel conditions also was demonstrated. The remarkable uniformity of the average results, both in respect to mileages per gallon of fuel and average rates of speed is none the less important than the

the results obtained by the unsuccessful competitors, it is important to note that in some instances the latter developed better fuel economy. In such cases, however, lower average rates of speed and smaller load-carrying capacity served to offset the advantage gained by the consumption of smaller quantities of fuel.

#### The Story of Selden Summarized.

Coming as it does at the time when the Selden patent case is nearing a final decision, a little booklet just issued by the Selden Motor Vehicle Co., of Rochester, N. Y., is of particularly timely interest. "The Story of Selden and the Selden Car," it is called, and it tells in a brief way of the life of George B. Selden, his ambitions, his experiments, his trials and the final realization of his prophecy made 30 years ago. A condensed description of the 1911 line of Selden cars, together with illustrations of two of the latest types and specifications of these and three others are included in the booklet.



# Road Improvement from the Expert Viewpoint

How vast is the work being accomplished in the improvement of highways in the United States is difficult for the layman to appreciate, more especially for the reason that his vision usually is confined to the relatively few miles of roads with which he has been personally familiar long enough to have witnessed the transformation. In reviewing the technicalities of the work that has been accomplished already, Major W. W. Crosby, of Baltimore, in a paper read before the recent Good Roads convention in St. Louis, indicated that the development has not been confined solely to the roads. The modern highway is the creation of the modern highway engineer, and while, as Major Crosby was ready to admit, some of the practices of the American engineers are not up to the best practice, in some others the road builders of this country are, to use his own words, "far ahead of the rest of the world."

"Since 1894, when the states of Massachusetts and New Jersey began their modern road construction, the development of such work in this country has been rapid," said this authority by way of historical outline. "New Jersey had first provided for state aid in highway improvement by an act passed in 1891, but this was inoperative from various causes until June, 1894, when work was begun. Connecticut began in 1895; Maryland in 1896; New York in 1898; and other states have followed from time to time until now, in 1910, over thirty are engaged in this work."

"When the work began in this country skilled highway engineers were scarce. Macadam quite naturally was the 'Mentor' of the engineers attempting highway work—his predecessors, Tresaguet and Telford, being overlooked."

"The Massachusetts authorities seemed to comprehend, perhaps most clearly, the principles laid down by Macadam and all their work has been based on these axioms. Of course, differing conditions, new machinery and varying requirements compelled some changes in the application of the principles, but the latter were as closely adhered to as possible under the conditions. The results show plainly that Massachusetts was particularly fortunate not only in the broadmindedness and farsightedness of her men in charge of the work, but also in the clearness with which they understood the principles at the bottom of macadam construction. . . .

"In the matter of culverts and bridges it was early recognized that the more permanent forms of construction were the more desirable from every point of view.

At that time reinforced concrete was scarcely known here. The attempt was made to use brick and stone masonry as far as possible, though considerable steel work seemed necessary in most cases of over four feet span, owing to the cost of masonry arches. With the advent of reinforced concrete the ability of the engineers to still further reduce the use of perishable steel trusses and girders was greatly increased, and the opportunity was immediately seized.

"At first in the use of concrete too little thought was given to the appearance of such structures. As their permanency impressed itself, and with the growing appreciation of the value of considering the aesthetic side of highway work, much improvement in the design of such structures has resulted. There is room, however, for further improvement, and the engineers of this country would do well to study the examples set in this matter by the foreign authorities."

"In the matter of road surface construction the best practice in the states is away in advance of the foreign. In the variety of materials used, in the development of methods for using the same, and in the recognition of the proper principles to be followed the engineers of the states can give points to the foreign engineers. So far as the writer knows there is but one item of construction on which we should pattern after foreign practice, and that is in the use of machinery."

"Owing to the diversity of our resources and conditions the American road surfaces built offer an immense variety of results. By no means all of them are satisfactory nor, undoubtedly, the best that could have been obtained by better methods. But the variety of materials and conditions has probably, in the short period of their use, interfered with, in many cases, a proper recognition of the best methods of use. Unwise conservatism and adherence to old practices, as well as rash and unjustifiable ignoring of well-established principles, have been naturally followed by failures or unsatisfactory results. The advent of a new material for use on the roads or the conception of a new method, perhaps induced by local conditions, has too often tempted highway authorities and even the younger highway engineers to ignore or abandon the proved principles underlying such work, and to rush after false gods to their own (or others) destruction. . . .

"Stone, broken by hand or by machinery, is probably the oldest and most universal of road surfacing materials. Certain well-developed principles have been established,

concerning its use in macadam, that ought to be so well recognized that their repetition would be trite and unnecessary. The writer regrets that such does not seem the case, and, therefore, feels impelled to state as follows:

"a. The macadam surfacing is but a roof, a wearing surface over the foundation, without which latter it cannot support a load, nor in which can it remedy defects of sustaining power. It is true that to some extent the macadam may effect a distribution over the foundation of the strains coming on the surface of the former, but in the design of the foundation great care should be had in allowing for such distribution."

"b. The macadam should be planned as, and built, separate and distinct from the foundation. Any merging or lack of distinctness between the two, except possibly in the cases of sandy or sand-gravelly foundation can only result in a weakening of the macadam without a corresponding increase in the strength of the foundation."

"c. The particles forming the macadam itself should be packed as closely as possible together. There should be an actual interlocking of the pieces of stone. No macadam is worthy of the name that does not contain this interlocking, and the more perfect the latter is the better will be the macadam. This necessarily means that, in the laying of the macadam, screening to prevent improper proportions or too great variation in the sizes of the pieces being used is required, as are also the spreading and compacting of the stone in layers of only such thickness as the roller can be relied upon to compact to the utmost; the exclusion of such an excess of fine or foreign material from the mass of broken stone as will prevent the proper compactness of the latter; the reduction of the voids in the mass of broken stone to the utmost possible minimum, and the after filling of those voids by finer material to complete the compactness of the mass."

"Only too often has the writer noticed in this country the ignoring of one or more of the principles expressed in the above paragraphs, but he has been impressed with the far more prevalent ignoring of them elsewhere, especially those principles mentioned under 'c.' Good results, where these latter have been ignored, are evidently not worse only because of the maintenance accorded after construction. That the cost of such maintenance could be materially reduced or that better results with the same maintenance could be secured by recognizing the principles mentioned has apparently been lost sight of, with the principles them-

selves, by the foreign engineers. No one who has the opportunity to examine carefully the foreign construction of road surfaces can fail to be impressed with its inferiority compared with that of the best of the states—as it has been styled ‘the McClintock Road.’

“The writer has been regretfully impressed with an apparent tendency, more especially perhaps among novices in road building and with suggested new materials, to ignore in their work the points referred to above. For instance, with the use of pitch compounds (bituminous cements) in road surfacing some sort of results can be secured even if the stone is not thoroughly compacted. Usually, however, as the more experienced engineer fully realizes, the absence of the proper interlocking quickly makes itself manifest—especially in cases where a short-lived cement has been used—and such a surface readily succumbs to severe strains. It of course takes some time frequently to demonstrate the expensiveness of inferior construction, and by that time often the same authorities that were responsible for such construction are chasing new butterflies. . . .

“Some localities are devoid of trap and local conditions may seem to compel the use of even a soft limestone. Undoubtedly this makes a better macadam than many other local stones, and its results may be improved by ‘reversing’ the courses, i. e., by using the No. 2’s in the first course and the No. 1’s in the second course as laid. The results, however, are even then usually inferior to those of the ordinary methods using suitable stone, though the ‘reversed’ macadam may be a locally satisfactory, and indeed necessary, makeshift.

“The writer has even ‘reversed’ excellent trap rock, where severe traffic conditions seemed to call for such a procedure, with satisfactory results by the addition of a bituminous cement. The main objections to a ‘reversed’ macadam are a resulting excessive roughness of surface in ordinary water-bound work, and a tendency of the macadam to ravel. Both of these can be largely overcome by the use of a suitable pitch in the surface. This reversal of the courses seems to violate another principle of ordinary macadam, namely:

“d. The sizes of the pieces of stone forming a course of macadam should be as large as practicable and, at the same time, no longer than will cause them to retain their position in the road despite the ordinary tendencies to dislodgment. The presence of a proper binder may justify the apparent violation.

“Macadam found that a one-inch cube was about the maximum that could be relied upon to retain its position in the road surface under the tilting tendencies of the loads and with the support of the adjacent pieces interlocked with it. It has, in our modern work, been demonstrated that the cementing action of the stone dust may aid

the interlocking somewhat, and under certain conditions considerably. In some cases even as large as the ‘three-inch size’ of soft limestones have done very well in the surface of the road because of their high cementing qualities. In fact, in any macadam, it seems desirable to use a stone whose dust has at least a certain cementing value (a makeshift is the addition of clay, before referred to). Especially is this true under modern traffic.

“Page has shown that the cementing powers of many rocks can be greatly increased by the use of limestone screenings with them, and this has greatly increased the number of available stones. There are many localities, however, where suitable stone is not available, and local conditions require substitutes of various kinds for macadam. Among such may be mentioned gravel, shells, marl, burnt clay, slag, coquina, etc. To the use of these, the principles of ordinary macadam operate in full. The application of these principles has not been as generally careful as might be wished. For instance, in the use of shells, frequently too much reliance has been placed on the mortar formed by the sand and shell dust to hold the shells themselves in place, and not enough compaction has been secured in the shells themselves to secure the best results from them.

“In many instances local conditions have caused the abandonment of macadam entirely and instead the use of block pavements, such as brick, or sheet pavements, such as asphalt mixtures, sand, clay, etc. Some experiments also have been tried with small blocks of both natural and artificial stone. While undoubtedly the variety of experiments has been much greater in this country, it cannot yet be said that all have been successes. Nor have all been failures, by any means. There is much hope for ultimate success in perhaps the majority of cases.

“For the greater part of the modern highway work in this country macadam can still be considered as a standard surfacing. The writer does not consider that macadam loses its character as much by the mere substitution of a bituminous cement for the mineral colloidal cement of earlier results. When, however, the before-mentioned principles of macadam are ignored, especially the one concerning the interlocking of the pieces of stone, he believes the resulting mass is no longer entitled to be called macadam.

Perhaps ‘bituminous concrete’ would apply to such a mass, whose main reliance for integrity under stress must then come from bituminous cement in the mass. If the cement happens to be and remains a strong one, the results may be satisfactory, and perhaps even more so than the best ordinary macadam could provide under the conditions. But they cannot ipse facto be as good even then as if the mass were a real macadam reinforced by the addition of

bitumen to its interstices. The writer believes that the truth of the above will soon be more widely recognized than it is at present, perhaps, and that instead of it being considered that ‘the macadam road is a thing of the past’ it will be acknowledged that properly built and cemented macadam has a greater future than ever before. In fact, until recently vitrified brick, sheet asphalt, and some other pavements were largely used to fill in the gap between ordinary macadam and stone blocks. With the development of a standard bituminous macadam their use is constantly becoming more limited and dependent upon favoring local conditions.

“Page has shown the horizontally shearing effect of the traffic so fatal to the life of ordinary macadam and it was quickly seen by engineers that successful resistance to such shear could be in many cases given to macadam by the addition of some form of bituminous cement. As a corollary, it was also quickly apparent that the supply of available materials for use in macadam was contemporaneously enlarged—another factor tending toward an increase in the use of macadam strengthened by a bituminous cement.

“The fact that under certain conditions the existence of a thin carpet of pitch and sand over the surface of the macadam seems desirable in no way lessens the requirements for proper macadam underneath, and the desirability for such a carpet generally is as yet by no means satisfactorily proved. However, it may be expected that valuable evidence will be forthcoming on this, as well as on numerous other points now in question, in the near future, and in the production of such evidence again the engineers of this country are leading by months, if not years. The ‘standardization’ pleaded for by a prominent English engineer in the spring of 1910 was actually begun a year earlier in the United States. Such standardization is undoubtedly the now most pressing consideration for us. We are at work upon the question in advance of the rest of the world and will undoubtedly soon accomplish conclusions of benefit to all.

“Highway engineering is no longer the work of a skilful, if ignorant, laborer; it has become an intricate science calling for deep thought and high art to meet successfully the demands on its followers. The engineers of this country have above all others responded successfully to these demands in greater variety and profusion of results. They have fallen behind on one point alone. We have not, as a whole, as yet, be it from lack of sufficient demand and opportunity; be it from lack of popular appreciation and support; or from even lack in ourselves of proper recognition of our duty, developed a system of maintenance—a regard for maintenance approaching the foreign or beginning to meet our needs.”



## "LEAGUE'S" CHARTER IN DANGER

Buffalo Institution Catches a Tartar in Pennsylvania—Testimony Taken by New York State Officials.

After pursuing an interesting course for several years, the so-called International Automobile League of Buffalo, N. Y., at last has been backed against the wall and is fighting for its existence. On the complaint of H. C. Smith, a Pennsylvanian who did not enjoy his dealings with the "league," proceedings have been instituted looking toward an annulment of its New York charter. Testimony in the case was taken at Albany last week, a number of tradesmen being called to give evidence.

The International Automobile League is one of the very numerous family of private partnerships and corporations which prefer to operate under such apparently unselfish and suggestively uncommercial titles and which make a business of selling stock or "subscriptions," the purchase of which is supposed to entitle the buyer to reduced prices on about everything the market affords. If they fulfilled even half of their promises most of the legitimate dealers and accessory houses would have to shut up shop. The Buffalo "league" has been particularly bold and particularly prolific of promises and printed matter, and on several occasions has been in hot water with its members because of failure to deliver goods according to its professions.

It long had operated under the style the International Automobile League, but some four months ago there was incorporated under the laws of New York the International Automobile League Tire & Rubber Co., capitalized at \$1,000,000, in which A. C. Bridwell, W. Priess and C. H. Bowe figured as the incorporators.

### Houpt Parts from the Houpt-Rockwell.

Harry S. Houpt, secretary and manager of the Harry S. Houpt Mfg. Co., makers

of the Houpt-Rockwell car, has resigned that office and retired entirely from the affairs of the company. The car which is made by the New Departure Mfg. Co., of Bristol, Conn., takes its name from Mr. Houpt and President Rockwell of the New Departure company, which controls the Houpt company.

### Field Going from Tires to Rambler Cars.

Harry E. Field, vice-president and general sales manager of the Hartford Rubber Works Co., has resigned those offices to become president of the Rambler Automobile Co. of New York; his resignation, however, will not become effective until January 1st next. The Rambler company is the eastern branch of the T. B. Jeffery Co., and his new duties will give Field the management of the Jeffery interests in all of the territory east of Buffalo and Pittsburg, including New England and the South Atlantic states. Field has been identified with the Hartford Rubber Works for some six years, his unusual ability as a branch manager causing him to be called to the factory, where also he made his mark. He has been close to President Anderson and to the officials of the Rubber Goods Mfg. Co., the parent company, and they are free in their expressions of good will and regret that Field is to go elsewhere. "You can say nothing too good of Field," is the way Mr. Anderson summarized the opinion. Field has traveled from Maine to California and consequently is widely known in every direction.

### Offer Made for Croxton-Keeton Assets.

The trustee of the bankrupt Croxton-Keeton Motor Car Co., Canton, Ohio, has been offered \$50,000 for all of the property and assets, except the cash in hand and in bank, the purchaser already having made a deposit of \$5,000 as a guarantee of good faith. The offer will be considered at a meeting of the creditors in Canton on Monday next, 12th inst., the call for the meeting having been issued by A. M. McCarthy, the referee in bankruptcy. It is likely that the bid will be accepted.

## RECEIVER TAKES CHARGE OF PARRY

Indianapolis Company Admits Its Insolvency and Court Acts Promptly—Failure was Not Unexpected.

The Parry Automobile Co., of Indianapolis, Ind., went into the hands of a receiver on Saturday last, 3d inst. The action was taken as the immediate result of a petition filed by the Webster & Parks Tool Co., whose claim amounted to \$327.15, but it was in no wise a surprise, as it was well known that the Parry company had been skating on thin ice for some time, and its failure had been expected and discounted in advance; in fact, Judge Carter, of the Superior Court, who at once named the Union Trust Co., of Indianapolis, as receiver, had been notified that the petition was to be filed and was awaiting it.

The Webster & Parks Tool Co.'s claim is but one of a large number of debts and was selected as the one most convenient to bring matters to a head. The petition alleged that the Parry company was in imminent danger of insolvency and the company was quick to admit the truth of the allegation. Its board of directors had met on Friday and agreed that the appointment of a receiver was the best way out of its troubles. Its liabilities are placed at about \$250,000; its assets are not stated.

The Parry Automobile Co. is capitalized at \$1,000,000, and was organized in July, 1909, and the fact that D. M. Parry, its moving spirit, long had been conspicuous in the buggy business and also had acted as president of the National Association of Manufacturers, served to give the automobile company quick recognition. It was not, however, Mr. Parry's first venture in the automobile industry. Previously he had been the chief figure in the Overland Automobile Co., which, however, became crippled when some of Parry's personal investments in traction and other enterprises turned out unfavorably. It was then

that John N. Willys and his associates threw themselves into the breach and by heroic work obtained control of the Overland company and not only saved it from going to smash but caused it to grow and flourish as it never had flourished before. When Mr. Parry caught his second breath he formed the Parry Automobile Co., and though it at one time employed as many as 600 men its health has been more apparent than real. Officially its failure is ascribed to the "general condition of the automobile business," but lack of ready cash, the cause of most embarrassments, is nearer to the real reason. An effort will be made to reorganize and continue the business.

#### Matlack Becomes Ajax-Grieb's Manager.

J. C. Matlack, one-time president of the International Rubber Co., and later vice-president and general manager of the Michelin Tire Co., which took over the International factory at Milltown, N. J., has been made secretary and general manager of the Ajax-Grieb Rubber Co., in which capacity he will greatly relieve President Grieb, who since Horace De Lisser resigned the general management and joined the United States Motor's staff, has been doing double duty. Matlack has had ripe experience not only in the tire business but in the automobile trade itself, having spent some time high up in the General Motors Co.

Before the motor car appeared on the scene he for years was prominently identified with the bicycle trade. He is a man of strong personality, as one of the stories related of him serves to indicate. At one time in his career he was supposed to be the one of the chief lieutenants of a captain or sub-captain of industry who was not only the "whole thing" but who left no doubt of it whenever discussion or question arose. Matlack stood that sort of thing until he could stand it no longer. He tendered his resignation orally and in somewhat unusual fashion.

"You don't need me here," he quietly remarked to the "whole thing" when that worthy one day was, as usual, brushing aside all opinions save his own. "All you want is a man to agree with you and you can get one for very much less than half my price."

#### Fire Excites the Thoroughfare Building.

The Thoroughfare building, at Broadway and 58th street, New York, which houses a large colony of automobile concerns and automobile workers, was full of excitement and smoke on Monday, 5th inst., when fire broke out in the shop of the Dorian Rim Co., on the ground floor. The flames were subdued, however, before much damage had resulted, the rim company, the Oakland Motor Car Co. and the Wheeler & Schebler branch being the chief sufferers.

## CANADA IS STILL GOING STRONG

Continues to Be Biggest Buyer of American Cars—October Another Month of General Export Gains.

Continuing the prolonged upward movement of automobile exports, the figures for October, 1910, show a gratifying increase over those for the same month of the preceding year, the number of exported cars being 539, valued at \$647,785, as against 338 cars, worth 439,326, an increase of \$208,459, or 47.4 per cent. The total for the ten months foots up \$11,191,638, as against \$6,622,626 for the corresponding period of 1909.

With the exception of Great Britain and France, gains were made in all of the Government's 12 geographical divisions during October. The greatest individual advance again was made in Canada, which took \$284,612 worth of cars, as against \$157,314 in the same month of 1909, a gain of 80.9 per cent. The greatest proportional increase, according to the table, is recorded in the exports to Germany, where \$23,250 worth of American cars were sold in October of this year, as compared with \$3,154 in the same month of 1909. This extraordinary gain of 635.9 per cent, however, is due to the fact that the shipments during October, 1909, were unusual in that but one car actually was sent there. The greatest bona fide gain, proportionately, is shown by British Oceania, which took \$79,219 worth during October, 1910, as against \$30,226 in the same month of 1909, an increase of 162.1 per cent.

The figures for the ten months ending October, 1910, show corresponding heavy gains over the same period of the preceding year, the increase, \$4,569,012, amounting to 68 per cent. With the sole exception of France, every one of the divisions took a greater number of cars than in 1909, Canada heading the list with total purchases of \$4,442,383, an increase of more than 100 per cent. Other Asia and Oceania record the greatest proportional gain, 227 per cent. The report in detail:

	October—		Ten months ending October—	
	1909	1910	1909	1910
Automobiles and parts of—				
Automobiles .....	\$439,326	\$647,785	\$3,971,406	\$5,921,033
Parts of (not including tires).....	83,443	123,854	525,097	701,593
Exported to—				
United Kingdom .....	121,802	115,158	1,605,075	1,839,772
France .....	29,839	19,898	538,865	789,735
Germany .....	3,154	23,250	151,467	157,974
Italy .....		1,937	221,519	214,430
Other Europe .....	20,533	20,994	202,711	302,968
Canada .....	157,314	284,612	1,047,024	2,120,600
Mexico .....	57,682	72,435	249,036	375,153
West Indies and Bermuda.....	12,643	30,021	137,117	232,137
South America .....	11,235	32,390	101,677	158,701
British Oceania .....	30,226	79,219	75,165	192,337
Other Asia and Oceania.....	58,433	65,966	115,097	138,216
Other countries .....	19,908	25,759	51,750	100,603
Total.....	\$522,769	\$771,639	\$4,496,503	\$6,622,626
				\$11,191,638

#### To Form New Independent Association.

According to the promoters of the Grand Central Palace show in New York, an organization of "independent" automobile manufacturers, to be styled the National Association of Motor Car Manufacturers, will be permanently organized next week. They say that a temporary organization was effected at a meeting held last month in Hotel Belmont, New York, but that no announcement was made because details were not then perfected. Part of the plan in view includes taking over the management of the Palace show, the fostering of independent trade bodies and the promotion of shows in the larger cities for the benefit of the independent local dealers. In general, it is expected that the new association will replace the American Motor Car Manufacturers' Association, which formally dissolved last February, when most of its members entered the Association of Licensed Automobile Manufacturers.

#### Tire Exports Now Attaining Importance.

In sympathy with the remarkable growth of automobile exports, the shipments of tires have attained sufficient volume to justify their inclusion in the Federal statistics, which for the four months from July to October last, inclusive, show the value of shipments to have been \$735,579, of which \$535,071 represented automobile tires. It was only in July last that the record of tire exports was separated from that of other rubber productions. During the month of October itself the tire shipments attained a value of \$107,257, of which \$103,788 represented automobile tires.

#### Fire Destroys New York Body Factory.

The carriage and automobile body factory of Charles Barry, at 154 East 57th street, New York, was destroyed by fire Thursday afternoon last, 1st inst. The loss is about \$50,000. The fire was caused by gasoline and the flames spread so quickly and were so fierce that several employees were cut off and two were injured in jumping from a window. Opposite the factory stands the Yorkville prison, and precautions were taken to prevent escapes.



**387 EXHIBITS FOR GARDEN SHOW**

**Space Found for Record-Breaking Number of Exhibitors—Who They Are and Where They Will be Located.**

Promising to break all records for Madison Square Garden automobile shows, the eleventh annual exhibition to be held there, under the auspices of the Association of Licensed Automobile Manufacturers, which will open on January 7th next, will reveal a 25 per cent. increase in the number of exhibitors and almost a 30 per cent. increase in floor space, as compared with the Garden show of last year. There will be a total of 387 exhibits in all, of which 67 will be devoted to complete cars and 320 to accessories and parts. In the exhibition of January 8-15, 1910, 43 displays of complete cars were staged and 267 of accessories—a total of 310. Changes in the arrangement of the Garden this year will render 100,000 square feet of floor space available, or 22,600 more than was necessary a year ago. Among the exhibitors will be found many new names, while for the first time the list of car manufacturers will include a majority of those who formerly were identified with the now defunct American Motor Car Manufacturers' Association. The complete list follows:

**Main Floor.**

1. F. B. Stearns Co.
2. E. R. Thomas Motor Co.
3. Olds Motor Works.
4. H. H. Franklin Mfg. Co.
5. Dayton Motor Car Co.
6. Oakland Motor Car Co.
7. Lozier Motor Co.
8. Elmore Mfg. Co.
9. Winton Motor Car Co.
10. Locomobile Co. of America.
11. Hudson Motor Car Co.
12. Mitchel-Lewis Motor Co.
13. Stevens-Duryea Co.
14. Packard Motor Car Co.
15. Buick Motor Co.
16. Cadillac Motor Car Co.
17. Willys-Overland Co.
18. Reo Motor Car Co.
19. Peerless Motor Car Co.
20. Pierce-Arrow Motor Car Co.
21. Chalmers Motor Co.
22. Maxwell-Briscoe Motor Co.
23. E-M-F Co.

**Exhibition Hall.**

50. Daimler Import Co.
51. Mercer Automobile Co.
52. Moon Motor Car Co.
53. Simplex Motor Car Co.
54. Corbin Motor Vehicle Corp.
55. Nordyke & Marmon Co.

**Elevated Platform.**

101. Knox Automobile Co.
102. American Motor Car Co.
103. Matheson Motor Car Co.
104. National Motor Veh. Co.
105. Selden Motor Veh. Co.
106. Buckeye Mfg. Co.
107. Moline Automobile Co.
108. Premier Motor Mfg. Co.

109. Pullman Motor Car Co.
110. Pope Mfg. Co.
111. Jackson Automobile Co.
112. Brush Runabout Co.
113. Hotchkiss Import Co.
114. Haynes Automobile Co.
115. Royal Tourist Car Co.
116. Metzger Motor Car Co.
117. Autocar Co.
118. Columbia Motor Car Co.
119. American Locomotive Co.
120. Garford Co.
121. Waltham Mfg. Co.

**Elevated Platform.**

122. Goodyear Tire & Rubber Co.
123. Whitney Mfg. Co.
124. Veeder Mfg. Co.
125. Hartford Rubber Wks. Co.
126. Badger Brass Mfg. Co.
127. B. F. Goodrich Co.
128. Diamond Rubber Co.
129. C. F. Splittdorf.
130. Gray & Davis.
131. G & J Tire Co.
132. Morgan & Wright.
133. National Carbon Co.
134. Light Mfg. & Foundry Co.
135. Baldwin Chain & Mfg. Co.
136. Phineas Jones & Co.
137. A. O. Smith Co.
138. National Tube Co.
139. Diamond Chain & Mfg. Co.
140. Jones Speedometer Co.
141. N. Y. & N. J. Lubricants Co.
142. C. A. Mezger, Inc.
143. Weed Chain Tire Grip Co.
144. Continental Rubber Wks.
145. Wheeler & Schebler.
146. Pennsylvania Rubber Co.
147. Remy Electric Co.
148. Consolidated Rubber Tire Co.
149. Randall-Faichney Co.
150. United States Light & Heating Co.
151. Republic Rubber Co.
152. Conn. Tel. & Elec. Co., Inc.
153. Chandler Co.
154. Columbia Nut & Bolt Co., Inc.
155. Coes Wrench Co.
156. Hartford Suspension Co.
157. Edmunds & Jones Mfg. Co.
- 157A. Adam Cooks Sons.
158. Morrison-Ricker Mfg. Co.
159. J. H. Lehman Mfg. Co.
161. Chas. E. Miller.
162. A. W. Harris Oil Co.
163. Standard Roller Bearing Co.
164. Firestone Tire & Rubber Co.
165. Oliver Mfg. Co.
166. Timken Roller Bearing Co.
167. Timken-Detroit Axle Co.
168. Pittsfield Spark Coil Co.
169. Spicer Mfg. Co.
170. Brown-Lipe Gear Co.
171. Swinehart Tire & Rubber Co.
172. Warner Instrument Co.
173. J. H. Williams & Co.
174. Kokomo Electric Co.
175. Warner Gear Co.
176. Standard Welding Co.
177. American Ball-Bearing Co.
178. Fisk Rubber Co.
179. A. R. Mosler & Co.
180. Gabriel Horn Mfg. Co.
181. Castle Lamp Co.
182. Joseph Dixon Crucible Co.
183. Valentine & Co.
184. Heinze Electric Company.
185. Vacuum Oil Company.
186. Briscoe Mfg. Co.
187. Wm. Cramp & Sons Ship & Eng. Bldg. Co.
189. R. E. Dietz Co.
190. Herz & Co.
191. S. F. Bowser & Co., Inc.
192. The Pantasote Co.
193. Springfield Metal Body Co.

**Balcony.**

201. Inter-State Automobile Co.
202. Ohio Motor Car Co.
203. Palmer & Singer Mfg. Co.
204. Kissel Motor Car Co.
205. Hupp Motor Car Co.
206. Chadwick Engineering Wks.
207. Speedwell Motor Car Co.
208. Regal Motor Car Co.
209. W. H. McIntyre Co.
210. Marquette Motor Co.
212. Pierce Motor Co.
213. Flandrau Motor Car Co.
215. Midland Motor Co.
217. Courier Car Co.
218. Simplex Automobile Co.
219. Atlas Motor Car Co.
221. Cartercar Company.

**Balcony.**

222. Ajax-Grieb Rubber Co.
223. Columbia Lubricants Co. of N. Y.
224. Bosch Magneto Company.
225. Michelin Tire Company.
226. Lovell-McConnell Mfg. Co.
227. Elec. Storage Battery Co.
228. Continental Caoutchouc Co.
229. Eiseemann Magneto Co.
230. Stewart & Clark Mfg. Co.
231. Empire Tire Co.
232. Thermoid Rubber Co.
233. Vesta Accumulator Co.
234. New Departure Mfg. Co.
235. Link-Belt Company.
236. Hoffercker Company.
237. Lebanon Steel Casting Co.
239. Apple Electric Co.
240. Turner Brass Works.
241. Auto Improvement Co.
242. American Ever Ready Co.
243. Stromberg Motor Devices Co.
244. Muncie Gear Works.
245. Gemmer Mfg. Co.
246. Excelsior Motor & Mfg. Co.
247. Warner Mfg. Co.
248. Motz Clincher Tire & Rubber Co.
249. Miller Rubber Co.
250. Livingston Radiator & Mfg. Co.
251. Star Rubber Co.
252. Royal Equipment Co.
253. Driggs-Seabury Ordnance Corp.
254. Cleveland Speed Indicator Co.
255. H. W. Johns-Manville Co.
256. Stein Double Cushion Tire Co.
257. Edison Storage Battery Co.
258. J. Ellwood Lee Co.
259. Cooks Standard Tool Co.
260. George A. Haws.
261. Homo Co. of America.
262. E. B. Van Wagner Mfg. Co.
263. Seamless Rubber Co.
264. R. T. Hardy Co.
265. L. C. Chase & Co.
266. National Coil Co.
267. J. H. Sager Co.
268. Auburn Auto Pump Co.
269. Briggs & Stratton Co.
270. C. A. Shaler Co.
271. C. Cowles & Co.
272. Gilbert Mfg. Co.
273. Noera Mfg. Co.
274. Globe Machine & Stamping Co.
275. Leather Tire Goods Co.
276. The Carpenter Steel Co.
277. Witherbee Igniter Co.

**Balcony.**

278. Batavia Rubber Co.
279. Manufacturers Foundry Co.
281. Atwater-Kent Mfg. Wks.
282. McCue Co.
283. Parker Motor Co.
284. Muncie Wheel Co.
285. Crucible Steel Co. of America.
286. Standard Thermometer Co.
287. Isaac G. Johnson & Co.
288. Russell Motor Axle Co.

291 Briggs Mfg. Co.  
 292 Stevens Mfg. Co.  
 293 Orlando W. Young.  
 294 Kellogg Mfg. Co.  
 295 Newark Rivet Works.

#### Concert Hall.

301 Sprague Umbrella Co.  
 302 Hayes Manufacturing Co.  
 303 Havoline Oil Co.  
 304 Hess-Bright Mfg. Co.  
 305 Rands Mfg. Co.  
 307 Marburg Bros.  
 308 Sparks-Withington Co.  
 309 Frost Gear & Tool Machine Co.  
 310 Willard Storage Battery Co.  
 311 Reichenbach Laboratories Co.  
 312 Vanadium Metals Co.  
 313 Dover Stamping & Mfg. Co.  
 314 Western Tool & Forge Co.  
 315 Troy Auto Specialties Co.  
 316 White & Bagley Co.  
 317 Sireno Company.  
 318 Atlantic Refining Co.  
 320 The United Steel Co.  
 321 Vanadium Sales Co.  
 322 Century Rubber Trading Co.  
 323 Howard Demountable Rim Co.  
 324 North & Judd Mfg. Co.  
 325 McCord Mfg. Co.

#### 2d Tier and Room 7.

400 Doehler Die-Casting Co.  
 401 Wright Wrench & Forging Co.  
 402 Motor Parts Co.  
 403 Penfield Shock Absorber Co.  
 404 Culver Stearns Mfg. Co.  
 405 Best Ignition Equipment Co.  
 406 Ashland Mfg. Co.  
 407 L. V. Flechter & Co.  
 408 Rutherford Rubber Co.  
 409 A. U. Campbell.  
 409A F. H. Kelsey & Co.  
 410 H. A. Elliott.  
 411 Hazen-Brown Co.  
 412 Philadelphia Steel & Forge Co.  
 414 Universal Tire Protector Co.  
 415 International Metal Polish Co.  
 415A J. Alexander Mfg. Co.  
 415B Calmon Asbestos & Rubber Wks.  
 416 Broga Automatic Fastener Co.  
 417 Metal Stamping Co.  
 418 Rushmore Dynamo Works.  
 419 E. M. Benford.  
 420 C. A. Wiley Co.  
 421 Voorhees Rubber Mfg. Co.  
 422 Baker Sales Co.  
 423 Automobile Tire Co.  
 424 Randolph & Co.  
 425 Motor Specialties Co.  
 426 Reinhold Noflux Aluminum Solder Co.

#### Basement.

500 New York Sporting Goods Co.  
 501 Merchant & Evans Co.  
 502 Newmastic Tire Co.  
 503 Keystone Steel Casting Co.  
 504 Class Journal Co.  
 505 Class Journal Co.  
 506 Electric Speedometer & Dynamometer Mfg. Co.  
 507 Hydraulic Oil Storage Co.  
 509 Kilgore Mfg. Co.  
 510 Garage Equipment Mfg. Co.  
 511 Dorian Remountable Rim Co.  
 512 R. M. Hollingshead Co.  
 513 Geizler Bros. Storage Battery Co.  
 514 C. F. Ernst's Sons.  
 515 Wyckoff Lumber & Mfg. Co.  
 516 Gyrex Mfg. Co.  
 517 Hopewell Bros.  
 518 North East Electric Co.  
 519 W. E. Pruden Hardware Co.  
 520 Stevens & Co.  
 521 The Phila. Grease Mfg. Co.  
 522 Ideal Wind Shield Co.  
 523 Vehicle Apron & Hood Co.

524 L. Sonneborn Sons, Inc.  
 525 Rupert C. King.  
 526 Fegley Tire Chain Co.  
 528 H. D. Smith Co.  
 529 Kein Starter Co.  
 530 Union Auto Specialties Co.  
 531 G. B. Lambert.  
 532 Hofacker Mfg. & Supply Co.  
 533 Novelty Mfg. Co.  
 534 Bliven & Carrington, Inc.  
 535 Delcampe Welding Co.  
 537 Wm. E. Pratt Mfg. Co.  
 538 Auto Wind Shield Co.  
 539 Fedders Mfg. Works.  
 540 Randerson Auto Parts Co.  
 541 Perfection Spring Co.  
 542 Detroit Motor Car Supply Co.  
 543 Star Starter Company.

543A Lefevre Arms Co.  
 544 Wayne Oil Tank & Pump Co.  
 545 Joseph Tracy.  
 546 Ernst Flentje.  
 547 N. B. Arnold.  
 548 Troy Carriage Sun Shade Co.  
 549 Ajax Trunk & Sample Case Co.  
 550 Post & Lester Co.  
 551 Motor Print Co.  
 552 Motor Vehicle Publishing Co.  
 553 Gotham Aluminum Solder Co.  
 553A Luce Mfg. Co.  
 554 John T. Stanley.  
 555 Motor.  
 556 Julius King Optical Co.  
 557 Jas. L. Gibney & Bro.  
 558 Horseless Age.  
 559 Fred Robinson.  
 560 H. M. S. Auto Switch Co.  
 561 Motor World.  
 562 Motor Car Equipment Co.  
 563 Standard Metal Work Co.  
 564 Peter A. Frasse & Co.  
 565 Wm. P. Miller's Sons.  
 566 P. Reilly & Son.  
 567 Atlas Chain Co.  
 568 Nightingale Whistle Mfg. Co.  
 569 H. H. Franklin Mfg. Co.  
 (Die-Casting Dept.)

570 Walter H. Foster Co.  
 571 Findeisen & Kropf Mfg. Co.  
 572 Brown Co.  
 573 Ward Leonard Electric Co.  
 574 New York Coil Co., Inc.  
 575 B. & L. Auto Lamp Co.  
 576 Jeffery-Dewitt Co.  
 577 El Arco Radiator Co.  
 578 Meteor Gas Co. of N. Y.  
 579 Universal Rim Co.  
 580 Elite Mfg. Co.  
 581 K. & W. Manufacturing Co.  
 582 C-M-B Wrench Co.  
 583 Hibbard Engineering Co.  
 584 Barthel, Daly & Miller.  
 585 S. Hoffnung & Co., Ltd.  
 586 J. S. Bretz Co.  
 587 Simms Magneto Co.  
 588 Couch & Seeley Co.  
 589 Nonpareil Horn Mfg. Co.  
 590 Lutz-Lockwood Mfg. Co.  
 591 U. S. McAdamite Metal Co.  
 592 Gus Balzer.  
 593 New England Automobile Journal.  
 594 Elliott Auto-Lighter Co.  
 595 Harry A. Allers & Co.  
 596 Automobile Topics.  
 597 A-Z Company.  
 598 Simonds Mfg. Co.  
 599 Thos. Prosser & Son.  
 600 Chilton Co.  
 601 International Engineering Co.  
 602 Chas. O. Tingley & Co.  
 603 Frank H. Cross Distributing Co.  
 604 Chas. J. Downing.  
 605 Earle Co.  
 606 A. J. Myers, Inc.  
 607 The Harrison Radiator Co.  
 608 Tuttle Motor Co.

609 Weston Mfg. Co.  
 610 Clayton Air Compressor Works.  
 611 Shawmut Tire Company.  
 612 Keystone Lubricating Co.  
 613 L. J. Muttly Co.  
 614 S. B. R. Specialty Co.  
 615 R. I. V. Co.  
 616 B. M. Asch.  
 617 Sheldon Axle Co.  
 618 Automobile Supply Mfg. Co.  
 619 Star Speedometer Co.  
 620 Valve Seating Tool Co.  
 621 Polson Mfg. Co.  
 622 Alfred C. Stewart Machine Wks.  
 623 Allen Auto Specialty Co.  
 624 K-W Ignition Co.  
 625 Cox Brass Mfg. Co.  
 627 Champion Ignition Co.

#### Morgan Reorganization is Under Way.

The differences between Blake & Johnson, of Waterbury, Conn., and the R. L. Morgan Co., of Worcester, Mass., which led to the serving of an attachment on the latter and the placing of a keeper in its truck factory, have been amicably settled. The keeper, of course, has been removed and the plans of the Morgan company for reorganization and general expansion are now well under way.

The first step in this direction, as the Motor World stated two weeks ago, was the election of Clair Foster, of New York, to the presidency of the truck company, and it now is known that the rest of the make-up is as follows: Vice-president, Ralph L. Morgan; treasurer, Henry E. Whitcomb; secretary, Henry B. Leary, the latter of whom is a New York attorney. These gentlemen with the following compose the board of directors: Frederick Phillips, John H. Bradley and Thomas Greenwood, all of whom are identified with strong industrial institutions in Worcester.

While Carl H. Page, of New York, whose name reports linked with the reorganization of the Morgan company, is not a member of that corporation, it transpires that his firm, Carl H. Page & Co., has been appointed sole selling agent for the Morgan trucks.

#### Buick Fails to Oppose Big Judgment.

On Wednesday of last week, 30th ult., judgment for \$15,572.76 was entered in New York against the Buick Motor Co., of Flint, Mich., in favor of the Fuchs & Lang Mfg. Co., of New York. The papers in the case show that the amount represents unspecified merchandise delivered to the Buick company between July 23, 1910, and Sept. 29, 1910, for which that company refused to pay. Service was made at 103 Park avenue, New York, on Curtis R. Hatheway, as the representative of the Buick company, which failed to demur within the legal time limit of 20 days, and a special extension of the same period. Despite the fact that the judgment is in its favor, the Fuchs & Lang Mfg. Co. politely declined to give any information whatsoever regarding the transaction, when information was sought by the Motor World.

**In the Retail World.**

George W. Shoemaker & Co. is the style of a new firm in Gaston, Pa. It is located at Union Square and South Main street.

Charles Hildebrand, who conducted a garage in Green, Ia., has sold out to J. N. Neal, who will continue the business under his own name.

F. K. Barnes is building a garage on 1st street, Hopkinton, Ia., where he will install a renting service in addition to the sale of Overland cars.

At a cost of \$35,000 a garage is being built at the corner of Lansdowne and Franklin streets, Boston, Mass. It will be occupied by Seward & Crane.

Charles E. Bergstroem, of Worcester, Mass., is building a garage at the corner of Vine and Cherry streets. The structure will be of brick, one story high.

Charles Gardner, of York, Neb., has purchased the garage of L. M. Lincoln in the same town. He will establish a renting service in addition to doing general garage work.

Lundell & Johnson, owners of a garage in Taylor, Tex., have discontinued partnership. Arthur Lundell has bought out his partner, and will carry on the business under his own name.

Dr. A. O. Faulkner, of Lincoln, Neb., has purchased the property at 1428 N street for a consideration of \$10,000. He will erect thereon a fireproof garage for electric vehicles exclusively.

Thomas Maher and L. H. Honeywell, of Pittsburg, Pa., are building a garage in Plymouth, Pa. They will do business under the style of the Plymouth Motor Car Co., at 35 Hanover street.

Ground has been broken for a one-story, brick and concrete garage, to be erected at 331 West Main street, Louisville, Ky. The Urwick Machinery & Supply Co. will occupy it when it is complete.

The Binghamton Motor Car Co., of the New York town of the same name, moved into more commodious quarters on Water street on December 5th. Charles Hancock, Jr., is the man in charge.

Under the style the Imperial Motor Co., a new concern has been formed in Montreal, Canada. The headquarters of the company are at 709 Berthelet street, and are under the management of N. E. Blood.

The Ware Automobile Co. is the style of a new concern which has established a garage in Ware, Mass. Its headquarters are on Main street, while the garage itself is located on North street. W. C. Wiggin is the manager.

Work is about to commence on the new garage to be erected for Edward B. Reiley, Jr., and James M. Lynch, on Union street, Waterbury, Conn. It will be one story high, 140x37 feet, and will be constructed entirely of brick and steel.

Work has been started upon the garage which is to be erected at the northeast corner of Danforth avenue and the Boulevard, Jersey City, N. J., by George Wacker. The structure is 150x75 feet, of brick, and will cost, when completed, about \$18,000.

Dr. A. C. Moorehead, of Minneapolis, has purchased a large interest in the Electric Carriage & Battery Co., of the Flour City, two former stockholders retiring from active participation in business. The company sells Rauch & Lang electric, and has just opened a garage on Harmon place, near 12th street, where it will display electric-propelled trucks.

Captain F. W. Cole, who a few months ago bought out the Cadillac agency in San Francisco, Cal., and installed his son in the business by arranging for the Cole "30" agency, has purchased the entire business of the Pacific Motor Car Co., agents for the Stevens-Duryea cars. His partner was to have been A. B. Costigan, but the deal fell through, and Captain Cole bought the agency on his own account.

**Maytag-Mason Company is Reorganized.**

Following its removal to Waterloo, Ia., the Maytag-Mason Motor Car Co. has been almost wholly reorganized, a number of new men and considerable additional capital having entered into its affairs. The officers of the reorganized company are as follows: Senator F. L. Maytag, president; Elmer Maytag, secretary and treasurer; O. C. Patte, vice-president; E. B. Hunter, general manager; N. I. Taylor, sales and advertising manager; C. C. Butler, superintendent; William Doods, purchasing agent; C. C. Deeling, engineer. The company has just completed a new foundry, in which they purpose making parts for their own motors, and early next year will erect another building in which they will make their own bodies. In addition to its pleasure car, the Maytag-Mason people will also produce a light delivery wagon for the 1911 trade.

**To Produce Batteries in Los Angeles.**

The Standard Carbon Co. has been organized in Los Angeles, Cal., for the manufacture of the Western Ignitor dry-cell and the Greyhound multiple battery. W. L. Bassett and H. J. Nice, of Minneapolis, Minn., and Dr. Downing D. Nice, of Los Angeles, are the interested men. Their plant will be located at 1151 Stanford avenue.

**Vulcan Gear Works Moves to Pontiac.**

The plant of the Vulcan Gear Works has been removed from Detroit to Pontiac, Mich., some 25 miles distant. At Pontiac it occupies a large brick structure which is one of a group being erected for the Pontiac Motorcycle Co., the Pontiac Foundry Co. and the Pontiac Drop Forge Co., respectively.

**Changes Among Prominent Tradesmen.**

H. N. Powers has been appointed sales manager of the Columbia Nut & Bolt Co., Bridgeport, Conn. Previously he was connected with the Gould Storage Battery Co., of New York.

J. G. Vincent, formerly with the Burroughs Adding Machine Co., has become chief engineer of the Hudson Motor Car Co. of Detroit. While with the Burroughs company, Vincent served as superintendent of inventions.

C. H. Booth, manager of the E-M-F Co.'s No. 3 plant in Detroit, has been promoted to the post of manager of manufacturing of the entire works. He succeeded to the vacancy caused by the tragic death of David Hunt, Jr.

George R. Salzman has resigned the superintendency of the E. R. Thomas Motor Co.'s service department, in Buffalo, to become factory manager for the Simplex Motor Car Co., of Wishawaka, Ind., makers of the Amplex two-cycle car. He assumed his new duties December 1st.

C. W. Dickerson, formerly vice president of the Columbia Trust Co., of Middletown, Conn., and at one time president of the Sterling Cycle Works, of Kenosha, Wis.—the Sterling plant now forms part of the Rambler automobile factory—has become identified with the Timken-Detroit Axle Co.; he has assumed the office of assistant secretary.

**St. Louis Abandons Plan for Annual Show.**

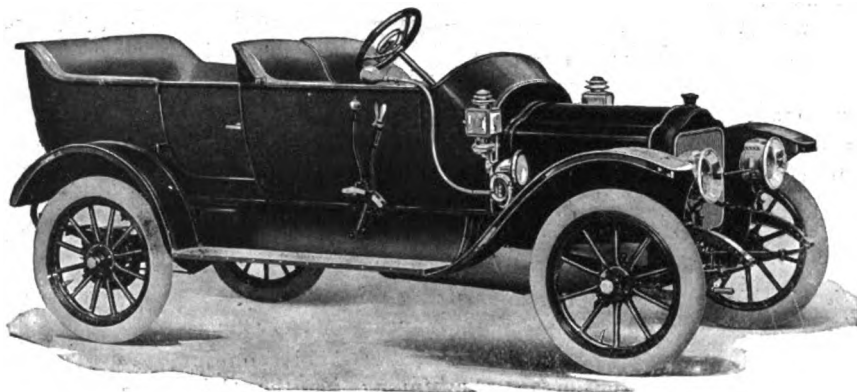
Owing to the inability of the automobile dealers of St. Louis, Mo., to find a building sufficiently large to house the automobile show which was planned to be held in that city in February, the event has been called off. This was decided at a meeting of the St. Louis Automobile Manufacturers and Dealers' Association held last week; and though there was some talk of holding an open-air exhibition later in the year, it ended in conversation.

**Schwarzkopf Opens an Information Office.**

E. E. Schwarzkopf, who recently retired as president of Automobile Topics, Inc., has opened an office in the Buick building in New York. The sign on the door reads: "Automobile Information—Commercial and Technical;" "The Club Journal." The latter publication is the house organ of the Automobile Club of America, which Schwarzkopf edited and published "on the side" while actively identified with Automobile Topics.

**Bretz Removes to Fifty-Fourth Street.**

The J. S. Bretz Co., importer of F. & S. ball bearings, U. & H. magnetos and other productions, has removed from the Times building to Motor Hall, 250 West 54th street, New York. The change permits the company to combine its offices, laboratories and warerooms under the same roof.



## What Does It Cost to Operate a White?

What in your opinion would constitute the best motor car—what is the supreme test of an automobile? One man says one thing, another something else, but may not it all be summed up in "what does it cost to operate?" Doesn't economy in this direction fill all requirements? Surely the car which consistently and continuously costs less for up-keep in the hands of all owners and all drivers must be an expression of the best engineering science. Mechanically it is correct, for results are only obtained from right principles.

We offer the following extracts from hundreds of testimonials as the most indisputable proof of the remarkable performance of the White thirty horsepower gasoline car. From these facts, as supplied by the users, we believe you will be led to the motor car you want.

"I have averaged from 19 to 21 miles, in general touring, per gallon of gasoline, and this I consider extremely economical."

(Signed) W. E. CROFUT,  
The Forest City Rubber Co.

"The characteristics of your car which please me most are its quietness in operation, its extreme cleanliness and economy in up-keep and gasoline consumption."

(Signed) S. STERLING McMILLIN,  
The Marble & Shattuck Chair Company.

"I regard your motor as a marvel of simplicity and extremely economical in consumption of gasoline, in which respect it is probably not equalled by any of the same power."

(Signed) F. A. PEASE,  
The Pease Engineering Company.

"A short time ago I made a trip from Cleveland to Canton, by way of Brecksville, and return. This is a very hilly and sandy road and my running time was 22 miles an hour. To my surprise, I found that I had run that day 136 miles on 5¾ gallons of gasoline."

(Signed) J. P. HARRIS,  
The Cleveland Gas Appliance Co.

"My car has given me unqualified satisfaction in every way. I have been much impressed with the economy of both up-keep and gasoline consumption, as well as great flexibility of power."

(Signed) H. A. FULLER,  
The Bourne-Fuller Company.

"Last Sunday I rode 88 7-10 miles and used three gallons of gasoline, which is about the average consumption."

(Signed) B. SILVERSTEIN,  
Ohio Sample Furniture Company.

"When I calculate the miles per gallon over the entire mileage covered to date, which is something over three thousand miles, my gasoline consumption gives about 17 4-10 miles to the gallon."

(Signed) R. B. SHERIDAN,  
The Brown Hoisting Machinery Co.

"The fuel economy is very good, being an actual average of twenty miles per gallon running on country roads at an average speed of thirty to thirty-five miles."

(Signed) A. R. MacKNIGHT,  
The W. S. Tyler Company.

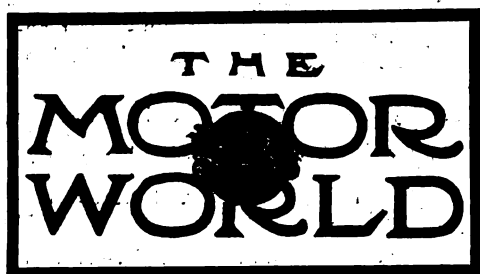
These men are prominent business men whose integrity and whose judgement must be respected in any community. Each letter represents a careful record of the operation of White cars.

Let us send you catalogue and the complete letters  
of these owners covering the features of the cars.

**The White  Company**

**830 East 79th Street, Cleveland**





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### Commercial Garage Requirements.

It is the experience of those who have given the matter much thought that the proper garaging of electric vehicles is a matter calling for the exercise of expert knowledge—mainly the knowledge acquired in the University of Hard Knocks. In his very suggestive presentation of the subject, which is printed in full elsewhere in these columns, C. L. Morgan expresses the opinion that success in this essential feature of the business application of the electric depends upon the wise selection of thoroughly competent employes, in resolutely distributing every particle of responsibility upon shoulders which are well able to support it. Granted that the upkeep of the vehicles is properly supervised operation under routine methods, becomes so simple that neither a high degree of intelligence nor skill are necessary.

While Mr. Morgan's conclusions all relate to the especial needs of the electric, the underlying principles apply with equal

force to the administration of an equipment of gasoline driven machines. Only, as the mechanism of the gas car is far more complicated and its proper care requires a higher degree of mechanical knowledge than the electric calls for, they should apply even more forcibly to the garaging of gasoline trucks.

As is true of all classes of machinery the maintenance question is of vital importance. The less its details are put on the shoulders of the operator the freer he is to engage in productive effort, and also the less his work depends upon skill and experience. In other words the simpler the duties of the operator the simpler the requirements of his office and the lower the wages he can command. The entire running cost of a well-equipped maintenance department thus can be saved out of the drivers' wages in a large establishment.

Because of this principle quite as much as by reason of economies in "overheads" and the advantages of conducting the repair department on a wholesale plan the large equipment is apt to prove more profitable than the small one. Indeed, close consideration of this factor will lead to a method of determining just where the line should be drawn between the public garaging of cars and the establishment of private garages.

### To Absorb Stresses in the Rear Axle.

Motorists who are familiar with the eccentricities of certain types of shabbily built shaft driven cars—as well as of some that are not so shabby—are accustomed to hear with absolute indifference the menacing clank, as of impending deadly peril, that occurs whenever the clutch is let in suddenly and sometimes when the car is rushed too hastily over a break in the road. On cars of the better class no such sounds are heard and none of the minor shocks that occasionally are felt on improperly designed machines commonly are experienced. But the fact remains that the underlying cause is present in both cases.

The trouble is with the arrangement of the rear axle with respect to the remainder of the mechanism. No matter what provision is made to render the anchorage of the axle flexible with respect to all natural movements it is possible to trace at least one form of shock against which no protection has been applied, sometimes several. For it must be borne in mind that the purpose of the rear axle system is ex-

ceedingly complex. First, it must carry the weight of the rear portion of the vehicle; second, it must take care of the traction load, or that which corresponds to the draw-bar pull of a locomotive; third, the torque load, which expresses the ability of the axle housing to resist a tendency to rotate in a direction opposite to that of the driving torque; fourth, the stresses due to the distribution of the driving effort within the axle structure.

The first three of these stresses are taken care of by independent means: the axle load by the springs, the traction either by the springs, a system of radius rods or by the torque tube or shaft housing, and the third by the torque bar or by the tube surrounding the driving shaft. But while due flexibility is provided in taking care of the axle and torque loads in most cases, the stresses which arise directly from shocks to the transmission at either end are resisted inflexibly. The result is that shocks due to sudden engagement of the clutch or to the wheels meeting obstacles must be met by unyielding metal, unless, of course, they are of sufficient magnitude to cause the wheels to slip. The consequence is that in cars of poor construction the effect of such shocks at once is manifest in the clanking of the torque bar and and the rattle of gears between which considerable lost motion exists. The quiet running of well-made cars does not prove the absence of these stresses.

While it is true to a limited extent that the spring cushioning of the torque bar in a measure serves to take care of shocks of this nature, owing to its ability to yield to sudden stress, it also is true that such yielding by no means removes from the gear teeth and driving shafts very considerable stresses which they ought not to be called upon to bear. That such stresses are multiplied by the action of the universal joints as a result of the movement of the chassis on the springs adds further complication.

The only apparent remedy for the difficulty is to insert a yielding medium somewhere in the transmission line to ease off such stresses. This may be done either by including a spring in the master clutch or in one of the propeller shaft joints or by making the shaft of a sufficiently flexible nature so that it will be subject to slight distortion under sudden excess of load. Both of these methods have been proposed at one time or another, though neither has been adopted at all generally.

**THE WEEK'S INCORPORATIONS.**

Detroit, Mich.—S. P. C. Motor Co., under Michigan laws, with \$50,000 capital.

Philadelphia, Pa.—Nance Motor Car Co., under Pennsylvania laws, with \$40,000 capital.

Harrisburg, Pa.—Ideal Motor Co., under Pennsylvania laws; to deal in automobiles. Corporators—George L. Merryman, John W. Shaffer.

Toledo, Ohio—Rossel Motor Car Co., under Ohio laws, with \$120,000 capital; to manufacture and deal in automobiles. Corporators—E. C. Rossel and others.

Denver, Col.—Western Marion Motor Co., under Colorado laws, with \$10,000 capital; to deal in automobiles. Corporators—A. E. Houghton, A. C. Lee and others, all of Denver.

Detroit, Mich.—Crowe Motor Co., under Michigan laws, with \$100,000 capital; to deal in automobiles. Corporators—Walter A. Crowe, Wm. McIntyre, Guy R. Price, all of Detroit.

Cleveland, Ohio—Quiggle Auto Co., under Ohio laws, with \$10,000 capital. Corporators—C. V. Quiggle, Samuel L. Henry, Charles S. Croskey, J. C. McMichael and E. M. Goodwin.

Wayne, Pa.—Hale-Knox Motor Co., under Pennsylvania laws, with \$13,000 capital; to deal in automobiles. Corporators—Philander C. Knox, Jr., Richard T. Tindle, of Valley Forge.

Jersey City, N. J.—DeHart Motor Car Co., under New Jersey laws, with \$10,000 capital; to manufacture automobiles. Corporators—William F. Ely, Frank J. Higgins, Rachel G. Butler.

Salt Lake City, Utah—Klaffki Novelty & Supply Co., under Utah laws, with \$3,000 capital; to deal in automobile accessories and supplies. Corporators—R. H. Klaffki, W. R. Martin, C. E. Jensen.

Branford, Conn.—I. & F. Motor Car Co., under Connecticut laws; to manufacture and deal in automobiles, parts, etc. Corporators—Charles Bunnell, Richard Bradley, H. F. Jordan and others.

Utica, N. Y.—Utica Electric Garage Co., under New York laws, with \$6,000 capital; to maintain a garage and automobile livery service. Corporators—Walter R. Schiller, Joseph A. Harding, Egmont G. Brewer.

Syracuse, N. Y.—Franklin Automobile Co., under New York laws, with \$400,000 capital; to manufacture, lease and deal in automobiles. Corporators—H. H. Franklin, J. Wilkinson, F. A. Barton, all of Syracuse.

Detroit, Mich.—Serviscar Motor Co., under Michigan laws, with \$10,000 capital, of which \$1,000 has been paid in; to deal in motor vehicles. Corporators—George C. Chene, George V. Pottle, Louis J. Hirschman, Frederick J. Nicholson, Louis V. Raulet.

**COMING EVENTS**

December 3-18, Paris, France—French Automobile Manufacturers' Salon in Grand Palais.

December 6-9, Indianapolis, Ind.—Convention of American Road Builders Association.

December 12-17, Los Angeles, Cal.—First annual "independent" show of Los Angeles Motor Car Dealers' Association at Shrine Auditorium.

December 24-31, Los Angeles, Cal.—Second annual show of Licensed Motor Car Dealers' Association of Los Angeles at Fiesta Park.

December 25-26, Los Angeles, Cal.—Twenty-four hours race at Motordrome.

December 31-January 7, New York City—"Independent"-automobile show in Grand Central Palace.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 7-14, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 11-12, New York City—Annual meeting of the Society of Automobile Engineers.

January 13, New York City—Annual banquet of the Motor and Accessory Manufacturers at Waldorf-Astoria.

January 14-28, Philadelphia, Pa.—Annual show of Philadelphia Licensed Automobile Dealers' Association in Third Regiment Armory.

January 15-21, Milwaukee, Wis.—Milwaukee Automobile Dealers' Association's second annual show in the Auditorium.

January 16-21, New York City—Association of Licensed Automobile Manufacturers eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-22, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 18, New York City—Annual banquet of the Automobile Trade Credit Association.

Pekin, Ill.—Pekin Garage & Outing Co., under Illinois laws, with \$5,000 capital; to manufacture, rebuild, repair, buy, sell, rent and store automobiles. Corporators—Walter E. Green, Hermann Kaemmerling, William R. Kaemmerling, Gustav Kaemmerling.

New York City, N. Y.—Randerson Auto Parts Co., under New York laws, with \$25,000 capital; to operate a machine and repair shop, to manufacture and deal in

January 25-28, St. Paul, Minn.—First annual show of automobile dealers in Auditorium.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Buffalo, N. Y.—Annual show.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Second week devoted to pleasure and commercial cars, motorcycles and accessories.

February 13-18, Washington, D. C.—Second annual show in Convention hall.

February 14-19, Dayton, Ohio—Second annual show in Memorial building.

February 15-21, Kansas City, Mo.—Fifth annual show of Kansas City Automobile Dealers' Association.

February 18-25, Binghamton, N. Y.—Annual show.

February 18-25, Minneapolis, Minn.—Minneapolis Automobile Show Association's annual show in National Guard Armory.

February 20-25, Cincinnati, O.—Cincinnati Automobile Dealers' Association's show in Music Hall.

February 20-26, Omaha, Neb.—Third annual show of the Omaha Automobile Show Association in Auditorium.

February 24-27, New Orleans, La.—First annual show of New Orleans Automobile Club at Fair Grounds.

February 25-March 4, Toronto, Canada—Annual show under auspices of Ontario Motor League.

February 25-27, New Orleans, La.—New Orleans Automobile Club's annual Mardi Gras race meet on Fair Grounds track.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 7-11, Des Moines, Ia.—Third annual show of Des Moines Automobile Dealers' Association at the Coliseum.

March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

April 1-8, Montreal, Can.—Annual show in Coliseum.

parts and accessories. Corporators—J. F. Randerson, Albany; E. G. Trimper, R. P. Herrick, New York City.

Hoboken, N. J.—Prince Tire Co., under New Jersey laws, with \$25,000 capital; to deal in automobile and bicycle tires. Corporators—Paul M. Pelletreau, 3 Broad street, New York City; Walter C. Shoup, Tenth and Clinton streets, Hoboken, N. J.; John D. Prince, 34 East 42d street, New York City.

**PENNSYLVANIAN HEADS A. A. A.**

**Hooper Chosen President—West Gets Vice-Presidencies—Committees Enlarged and Much Business Transacted.**

Robert P. Hooper, who is engaged in the textile business in Philadelphia, Pa., was chosen president of the American Automobile Association at its annual meeting on Thursday last, 1st inst., which was held in Hotel Belmont, New York City. Previously, Mr. Hooper was first vice-president of the organization, and as he already had been slated for the higher office his election was largely a matter of course.

The West was somewhat insistent in its demands for more recognition, and as a result it was given four of the five vice-presidencies, the complete slate of officials elected being as follows:



FRANK M. JOYCE  
First Vice-President

**President—Robert P. Hooper, Pennsylvania.**

**First vice-president—Frank M. Joyce, Minnesota.**

**Second vice-president—F. C. Donald, Illinois.**

**Third vice-president—C. L. Bonifield, Ohio.**

**Fourth vice-president—F. G. Webb, New York.**

**Fifth vice-president—F. L. Baker, California.**

**Secretary—John N. Brooks, Connecticut.**

**Treasurer—H. A. Bonnell, New Jersey.**

**Executive committee—A. G. Batchelder, chairman; Lewis R. Speare, Massachusetts; A. H. Knoll, New York; J. P. Coghlin, Massachusetts; Frank G. Webb, New York; A. D. Converse, Massachusetts; H. L. Vail, Ohio; C. M. Robinson, Connecticut; M. C. Moore, Wisconsin; P. J. Walker, California; John Bancroft, Delaware; F. C. Battey, Georgia; Ralph W. Smith, Colorado; E. C. Smith, Vermont; David Beecroft, Illinois; Stedman Bent, Pennsylvania; C. H. Gillette, Connecticut; J. H. Edwards, New Jersey; Paul C. Wolff, Pennsylvania; Edwin S. George, Michigan; H.**

**M. Rowe, Maryland; James T. Drought, Wisconsin; C. A. Quigley, Utah; S. D. Capen, Missouri; Sam T. Atkinson, Virginia; H. L. Gordon, Ohio; Charles M. Doe, Rhode Island; F. E. Edwards, Illinois; A. E. Lerche, Massachusetts; S. A. Miles, N. A. A. M.; Alfred Reeves, A. L. A. M.**

The slate, as elected, was prepared by the nominating committee, composed of C. H. Gillette, Connecticut, chairman; F. E. Edwards, Illinois; George C. Diehl, New York; H. L. Vail, Ohio; J. H. Edwards,



ROBERT P. HOOPER  
President

New Jersey; Paul C. Wolff, Pennsylvania, and L. R. Speare, Massachusetts.

While there had been some idle talk regarding secession on the part of the Western states, it had no basis in fact. It arose from a desire which, strangely enough, found birth in Oklahoma, that the headquarters of the association be removed to Chicago. J. W. Densford, secretary of the Oklahoma Automobile Association, was the prime mover in the matter, and, apparently, a ready letter-writer, he caused his idea to circulate in the Western country. Densford himself was not present at last week's meeting, and it was chiefly the Ohio dele-



C. L. BONIFIELD  
Third Vice-President

gation—the same Ohio that objects to the passage of a federal registration law—that espoused the Oklahoma man's notions. As the West had been given the Glidden tour, the national track championships and the national road championships, most of the Westerners, however, became convinced that they had not been so badly treated.

The headquarters will remain in New York, but it was provided that the Connecticut charter of the A. A. A. be so changed that the annual meeting may be held in any city which the governing board may select.

President L. A. Speare opened the meeting, of course, and though he reported his plan for a national assembly it was not adopted as presented. Instead, it was voted that every club in the A. A. A. may send any number of delegates to the annual meeting, but that, regardless of the number of such delegates, each club shall have but one vote. It was also decided that proxies may be voted by representatives of the states from which they emanate.

The meeting altogether lasted two days, having commenced on Wednesday, November 30, which day, however, was devoted chiefly to the reading of annual reports.

New Hampshire and Idaho were added to the roll, bringing up the total membership to 34,946, which is distributed between



F. C. DONALD  
Second Vice-President

35 state bodies and 249 clubs. In addition there are 860 individual members. A year ago the total membership was 25,759.

The report of H. A. Bonnell, the treasurer, showed a balance on hand of \$9,423.70, with other assets soon to be available.

As the result of a communication from the Massachusetts Highway Commission, stating that two visiting motorists—one from Connecticut, the other from New York—who had been stopped for over-speeding in Duxbury, Mass., and had agreed subsequently to appear in court, but who failed to observe the legal summons forwarded to them by registered mail, it was unanimously voted that the national officers at once notify the state bodies in Connecticut and New York of the acts of their offending motorists and request that pressure be brought to bear to see that they observe the Massachusetts summons. It was also voted that all similar cases should call for the same action, and that all assistance possible should be given in the enforcement of equitable laws. Later Dr. H. M. Rowe, of Maryland, offered a resolution emphasizing his stand. The resolution calls upon the officers of states issuing

licenses to notify the executive officers of the A. A. A. of such offenses so that the association may take action through its various state bodies.

The matter of federal aid in the construction of highways also was discussed and the A. A. A. placed itself on record by adopting the following resolution:

Resolved, That this association emphatically endorse the principle of Federal aid in the construction of highways, and that it further endorse and urge upon each of the several states the permanent appointment of a commissioner or commissioners and the adoption of desirable highway laws and proper provisions for making the same effective.

S. M. Butler, chairman of the contest board, under whose administration the A. A. A.'s sporting rib has been transformed from gelatine to steel, indicated that the encouragement of amateurism now is occupying his thoughts. This was demonstrated by the adoption of the following resolution, which he himself offered:

Resolved, That the contest board call upon A. A. A. clubs to encourage amateur automobile competition by interesting their members in various forms of contests on road or track, or on courses properly prepared for such contests.

Incidentally, the various committees of the A. A. A. are to be very much enlarged, the meeting deciding that hereafter the various national boards—touring, good roads, legislative and contest—be increased by the addition of the chairman of all similar boards of A. A. A. clubs, the membership being of an automatic nature. Provision also was made for the election of executive committees to carry on the work of the boards within the discretion of the respective chairmen.

After his election, President Hooper announced the re-appointment of all of the present chairmen of the national boards, except that of the touring information board, on which Howard Longstreth of the Automobile Club of Philadelphia succeeds Powell Evans of the same club. The hold-overs are: Good roads, George C. Diehl; legislative, Charles Thaddeus Terry; contest, S. M. Butler. Retiring Chairman Evans was thanked for his efforts, which have extended over a period of three years. Robert Bruce will remain in charge of the headquarters touring information bureau.

The retiring president, L. R. Speare, of Massachusetts, during whose two terms the organization has doubled in membership and in influence, received a standing vote of thanks, and a committee was appointed to select a memento of his notable occupancy of the association's highest office.

In connection with forthcoming annual meetings, it was voted that a banquet should be held, the president being empowered to appoint a committee to take charge of such affairs.

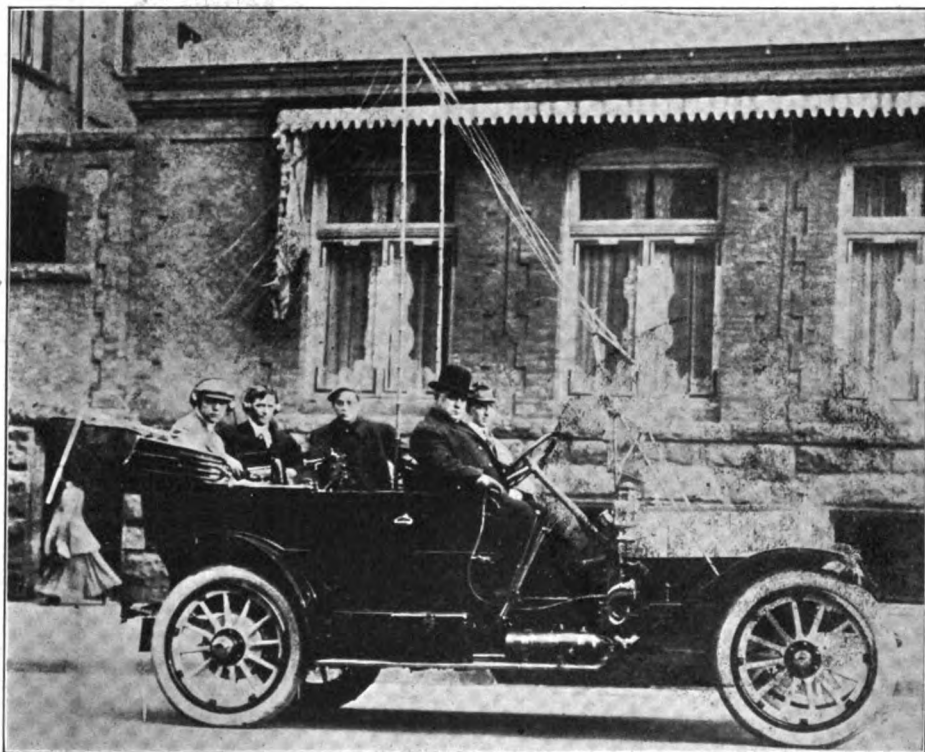
Some fifty-odd delegates, representing 16 states, were present at the meeting, 20 other states being represented by proxies.

## "WIRELESSING" FROM MOTOR CAR

**Oregon Automobilists Try an Interesting Experiment and Prove Its Practicality—Results they Obtained.**

To the average individual the world over the theory of wireless telegraphy with its mathematics and abstruse reasoning means nothing—the actual working of the whole scheme means much. Years ago the theory of this branch of science was worked out

character and was almost devoid of incident, unless a race between two women may be so termed; most of the races were match affairs between local celebrities. The promoters of the meet failed to realize any profit on the venture and blamed the small attendance on the weather. The lack of entries was blamed on the poor condition of the antiquated half mile dirt track and the consequent hesitation of the drivers to take a chance on it. Motorcycle racing was mixed with the automobile sport but watches were scarce and half the events



OREGONIANS AND THE WIRELESS APPARATUS WITH WHICH THEY EXPERIMENTED

and wireless communication between land stations and ships or vice versa became an actual fact, but the problem of sending and receiving messages from moving vehicles on land was much slower of solution, and it remained for two Portland (Oregon) men, by name O. P. Guldmeier and E. P. Preble, to accomplish the task successfully.

In the test a small portable apparatus, weighing less than 30 pounds and operated by six dry cells, was installed in a stock seven passenger Speedwell automobile, this car being chosen because of the lack of vibration from the motor and its easy riding qualities. Ground connections were made through the frame of the car with a movable wire running from the hub to the tire chain grips. Five passengers were carried in addition to the operator and messages were sent to the office of a Portland newspaper.

### Women Allowed to Race at Norfolk.

Norfolk, Va., saw some automobile racing on Thursday, Friday and Saturday of last week, but it was of a rather indifferent

were not even timed. The summaries:

#### Thursday, December 1.

Ten miles, for cars costing under \$1,000—Won by Bryant, Flanders; second, Sheldon, Hupmobile. Time, 15.21.

Five miles, for cars of 600 inches and under—Won by Edwards, Maxwell; second, Dusenbury, Rambler. Time, 7:08.

Two miles match race, Miss J. M. Robinson vs. Mrs. Edward Allen—Won by Miss Robinson. No time taken.

Five miles novelty race—Won by Dusenbury, Rambler; second, Edwards, Maxwell.

#### Friday, December 2.

Ten miles match race, Bryant, Flanders, vs. Edwards, Maxwell—Won by Bryant. No time taken.

Ten miles handicap—Won by Allen, Brush (two miles); second, Sheldon, Hupmobile (scratch). No time taken.

#### Saturday, December 3.

Ten miles match race, Bryant, Flanders, vs. Edwards, Maxwell—Won by Bryant. Time, 13:20.



**J. NIKRENT STARS AT LOS ANGELES****He Gets Everything He Goes for and Does****74 Miles in an Hour—Electrical Timer****Decides Eyelash Finish.**

Joe Nikrent, driving a six cylinder Knox loaned by Barney Oldfield, was more than half the show at the Los Angeles Motordrome racemeet, November 27 and 28; he won every event for which he was entered. His performances included the shattering of two speedway records, first in the first hour of the two hours race, in which he hung up a new figure of 74 miles, thereby bettering the record of 73½ miles, and the other in the five miles race for stock cars of the 451-600 inch class, in which his time of 3:50¾ eclipsed the former record by 1½ seconds. The five miles race for cars up to 600 inches displacement was easy for Nikrent, who led all the way. Geo. Bobst pluckily chased him, but although he drove a game race in his Cutting he could not catch the flying Knox.

Finishing so close together that only the electrical timing device could evolve the winner, Louis Nikrent (Buick) and George Clark (Cutting) furnished a sensation in the five miles race for cars of from 231 to 300 cubic inches displacement. Nikrent took the lead at the start and up to the third mile appeared to have the race well in hand, but Clark in the Cutting then began to close up and kept at it steadily until at the finish only the width of a tire remained between his car and the Buick. It looked like a dead heat, but the electrical timer proved it otherwise. Nikrent's time was 4:31¾, Clark being a hundredth part of a second behind him.

Joe Nikrent ran away from the field in the five miles free-for-all, his time for the five laps being 3:55¾. His brother, Louis Nikrent, started well in a Buick, but soon abandoned the race, for the second time leaving Clark in the Cutting to capture second honors.

In the light car class, for cars up to 300 cubic inches displacement, George Bobst (Oakland) romped home as he liked, his time for the five miles being 4:41. J. Fuchs (Staver) was second.

The first hour of the two hours Motordrome Endurance Derby for the Los Angeles Pacific Trophy, in which there were 11 starters, was a walk-away for Joe Nikrent in the Knox. He took the lead at the crack of the pistol and never was headed, almost burning up the boards of the mile track as he reeled off miles at the rate of 48¾ seconds, doing 74 miles in the 60 minutes. Bruno Seibel in a Franklin rolled up 68 miles and finished second, seven miles ahead of Clark, who was third in a Cutting.

The five miles race in which Oldfield's record of 3:52½ went by the board, was the feature of the second day's racing. Cars up to 600 inches displacement were eligible, and Nikrent, driving the same car with which Oldfield made his record last April, raced home in front of the field with the tatters of Oldfield's record fluttering in his wake. His time was 3:50¾—1½ seconds better than Barney's best. Louis Nikrent was second in a Buick and the Cutting with George Clark at the wheel was third.

Louis Nikrent (Buick) won his second race of the meet in the five miles event for cars in the 301 to 450 class. After the second mile mark was passed Nikrent had things all his own way, and he finished 8¾ seconds ahead of McKay, who drove a Cutting. The Franklin with Seibel driving was third.

By evading his pursuers for three miles, Roger Stearns, driving the Ford with which he made his debut in the Los Angeles-Phoenix race, created excitement in the pursuit race open to cars up to 230 inches displacement. Eventually he was ousted from his position, however, and the race, went to Fuchs at the wheel of a Staver-Chicago. Bobst in the Oakland was second and Stearns (Ford) fourth.

Joe Nikrent again got in the limelight a little later in the day, the occasion being the five miles free-for-all handicap in which the cars were handicapped according to their performances in the previous races. Stearns in the Ford was the limit man with Fuchs (Staver-Chicago), Bobst (Oakland), McKeague (Duro), Clark (Cutting), Louis Nikrent (Buick) and Seibel (Franklin) strung out in this order between him and Joe Nikrent (Knox) on scratch. The lead alternated between Fuchs and Bobst until the last half of the last lap, when Joe Nikrent and the Knox rushed up and flashed across the tape 50 yards in front.

In the second hour of the Motordrome Endurance Derby Championship, the first half of which was run on the previous day, Nikrent in Oldfield's Knox again had things pretty much his own way, and made no attempt to better his world's record made in the first hour. He finished the second hour with 72 miles to his credit, and all the other contenders behind him, making 146 miles for the two hours. Clark in the Cutting was second, and won the award for the 231-300 inch class by making a total of 127 miles. Arthur Horine was third in a Parry with 113 miles to his credit, and Bruno Seibel drove his Franklin 95 miles and took the cash in the 301-450 inch class. The summaries:

**Saturday, November 26**

Five miles, for cars up to 600 cubic inches—Won by Joe Nikrent, Knox; second, Geo. Clark, Cutting. Time, 3:59.

Five miles, for cars 231 to 300 cubic inches—Won by Louis Nikrent, Buick; sec-

ond, J. D. McNey, Cutting; third C. McKeague, Duro. Time, 4:31¾.

Five miles free-for-all—Won by Joe Nikrent, Knox; second, Geo. Clark, Cutting. Time, 3:55¾.

Five miles, for cars 161 to 230 cubic inches—Won by Geo. Bobst, Oakland; second, J. Fuchs, Staver. Time, 4:41.

First hour of two hours' race—Won by Joe Nikrent, Knox; distance, 74 miles; second, B. Seibel, Franklin; distance, 68 miles; third, Clark, Cutting; distance, 61 miles

**Sunday, November 27.**

Five miles, for cars 451 to 600 cubic inches—Won by Joe Nikrent, Knox; second, Nikrent, Buick; third, Geo. D. Clark, Cutting. Time, 3:30¾.

Five miles, for cars 301 to 450 cubic inches—Won by Louis Nikrent, Buick; second, Clark, Cutting; third, Bruno Seibel, Franklin. Time, 4:18¾.

Five miles pursuit race, stock cars, 161 to 230 cubic inches—Won by Jos. Fuchs, Staver; second, Geo. Bobst, Oakland; third, Roger Stearns, Ford. Time, 4:34.

Five miles, free-for-all handicap—Won by Joe Nikrent, Knox (scratch); second, Fuchs, Staver; third, Geo. McKeague, Duro. Time, 4:54¾.

Second hour of two hours' race—Won by Joe Nikrent, Knox; distance, 146 miles; second, Clark, Cutting; distance, 127 miles; third, A. W. Horrine, Parry; distance, 113 miles.

**Prince Building Wood Track in Oakland.**

After considerable delay, the project for a motordrome track in the vicinity of Oakland, Cal., which long has been nourished by Jack Prince, professional track builder and promoter, at length has come to a head with the announcement that a 22-acre tract of land has been secured for the purpose at Elmhurst. The site has been taken on a three-year lease, and work on a \$30,000 structure already has commenced, the labor contracts calling for the completion of the wood track within three weeks from the date of beginning operations, while the grandstand and other accommodations are to be finished in season for the initial meet, which is scheduled for December 30th to January 1st, just before the Portola race. The track is to be an oval wooden saucer, entirely surrounded with seats and enclosing a smaller track intended solely for bicycle racing. Regular monthly meets are included in the promoters' program.

**Texas Club Indorses Oldfield's Suspension.**

The Dallas (Tex.) Automobile Club has adopted resolutions indorsing the American Automobile Association's suspension of Barney Oldfield. His "mixing" with the negro, Jack Johnson, in the moving picture fake gave the Texans a better idea of Oldfield's real measure and induced them to take action.

**MOTOR TRUCK "SAVES" A LIFE BOAT**

**It Enables Wellman's Craft, and the Cat, to Reach Boston in Time—Dilemma That Was Solved.**

When Jerome K. Jerome wrote "Three Men In a Boat" comparatively little was known of the science of ballooning, and little did that versatile writer dream that some day the place of the immortal Montmorency might be taken by a feline rival, and that even the boat itself, in which the adventure was to take place, would emulate that worthy dog when he "got his leg in the jam" and go up in the air.



MORGAN TRUCK HAULING WELLMAN'S LIFEBOAT ON THE ROAD FROM WORCESTER TO BOSTON

Yet that is exactly what happened to the lifeboat of Wellman's ill-fated airship "America"—that is, it went up in the air, and with it went a party of six men—to say nothing of the cat. Of course, it came down again, and since then it has been giving a round of "exhibition performances" at various progressive Eastern department stores. The cat went, too. Having been booked to open an engagement at the department store of R. H. White & Co., in Boston, on Monday morning last, the problem of moving this 27x6-foot lifeboat from Worcester, Mass., where it had been staged, to the former city in the interim between closing time on Saturday and opening time on Monday, presented itself.

Mr. Vaniman, who was the engineer of the big dirigible and also its designer and builder, had no difficulty in solving the problems of aerial navigation, but this time he as "up in the air" in another sense, and found it harder to get down than ever before. The boat could neither be shipped by express nor by freight; in the first place,

because of the prohibitive cost of an end-door car, and in the second, because of the short time at the disposal of the America's engineer.

It seemed that the jig was "up," too, but at the last minute C. H. Martin, sales manager for the R. L. Morgan Co., learning of the predicament, rushed into the breach with a five-ton Morgan truck. At 8 o'clock on Sunday morning the whole exhibit, consisting of three men, the lifeboat, scientific and nautical instruments, oars, sails, life preservers, provisions for six men for twenty days, and, last but not least, the mascot cat, "Trent," were loaded on the truck and the run to Boston made in four and one-half hours. Mr. Vaniman was elated, and it is stated that hereafter,

**GAS TANKS MUST BE STAMPED**

**Federal Government Issues New Ruling—Affects All Automobiles Transported on Passenger Boats.**

Because of an inquiry from a New York steamship company asking whether it may transport to Porto Rico on steamers carrying passengers, automobiles equipped with Prest-O-Lite tanks, filled with acetylene gas, the United States Department of Commerce and Labor has, through George Uhler, supervising inspector general, ruled that such tanks can be carried on such vessels only when they are of specified strength

when attempting an airship trip across the briny, he will rely on a motor truck as being the safest mode of travel.

**Theirate Farmer and the Joy Rider.**

One D. E. Wallace and two members of the fair sex, all of Detroit, Mich., indulged in a joy ride one night last week which, as so often is the case, ended disastrously for the people involved—and, incidentally, for the car—but in this case assumed an amusing and unusual aspect when a farmer upon whom Wallace had precipitated an unprovoked attack from the rear promptly retaliated by taking possession of the automobile and, supported by sympathizers, refusing to part with it until his claim for damage was satisfied. Wallace had thoughtlessly "borrowed" a friend's car and was returning home when he ran into a farm wagon driven by Joseph De Clerque, with the results chronicled. Wallace paid the irate farmer \$100 for damage to the wagon and later contributed \$25 to the cause of justice for exceeding the legal speed limit by "at least 10 miles."

which shall be stamped in the metal of the tank. The decision, which has been transmitted to all local inspectors, and which applies to ferry boats, as well as sea-going craft, is as follows:

"Under the provisions of Department decision dated March 17, 1903, acetylene may be transported on steamers carrying passengers only 'when contained in steel tanks of not less than 55,000 pounds tensile strength to square inch, and of sufficient thickness of steel to withstand pressure of 1,200 pounds to square inch, and charged with acetylene to a working pressure not exceeding 240 pounds to square inch, said tanks to be completely filled with asbestos disks, the porosity of which shall not exceed 80 per cent.'"

"A further condition is that the tanks containing acetylene are to be stamped with thickness and tensile strength of the material of which they are composed, also with the words 'Acetylene compressed into porous substance' together with name of firm or company by whom the tanks have been charged."

## RUBBER FOUND IN FENCE POSTS

Michigan Professor Penetrates Mexican Wilds and Discovers Remarkable Tree  
—Children Furnished First Clue.

They've discovered another substitute for rubber, and this new gum is so unlike the long line of previous discoveries that it was extracted even from a fence post, which two years before had ceased to be a proud tree in a Mexican forest. The newly discovered substitute is of the natural gum variety, and, as indicated, its habitat is in the virgin woods of Mexico, of many commercial promises, and its discoverer is Prof. John R. Allen, of the engineering department of the University of Michigan, at Ann Arbor, who was sent into the wilds by certain Detroit capitalists, whose identity still remains undisclosed.

Although the actual discovery was made more than two years ago, the news of its importance only just has seeped out through the columns of a Detroit newspaper. It is almost superfluous to add that enormous profits await the exploitation of the new gum. At present it may be produced for 17 cents a pound, and the markets of the world are represented as eagerly reaching out their grasping fingers for it at a figure modestly advanced to 75 cents a pound. Rubber, the Para kind that furnishes the name for the raw material which goes into automobile tires, is quoted to-day in New York at something like \$1.50 a pound, so it readily can be seen what the promoters of the new substitute have lost—potentially—by delaying the announcement of Prof. Allen's discovery. Only a few short months ago Para was selling for double its present prices.

The narrative that goes with the disclosure is interesting almost to the point of being romantic. It runs this way: Edward W. Mayo, of Durango, Mexico, an American who has lived in that entrancing country for 30 years, and long has been at the head of the Mexican Telegraph & Cable Co., tipped off the Detroit capitalists to the fact that he believed that a hitherto unknown rubber-bearing tree existed somewhere in Mexico. Just what the tree was, he could not say, and he was equally ignorant as to its exact whereabouts and prevalence. What he did know was that a traveler, returning from the interior, told of having been told of other persons who had seen small boys rolling some sort of a vegetable gum into little balls which they afterward stamped on to hear the noise.

And behold, the giant industry that may be engendered by the artless desire of these simple native children to make a noise! Mayo tipped off the Detroiters, and they promptly tipped off the profes-

sor, who tipped off Mrs. Allen and one Henry Campbell, of Detroit. The last-named trio formed the basis of an exploring expedition. At Durango the party was joined by Mayo and a Miss Kimball, and the expedition at once proceeded in search of the little children who rolled gum balls and then stepped on them.

Needless to add, the quest was rewarded with success. Not only were the children found, but the source of their fireless snap-crackers also was located. It is very important to note, however, that the tree that furnished the gum was not merely one of the long-familiar ones, from which chemists long have sought to extract something that could be used instead of rubber. It was a new tree; it had never been classified botanically nor exploited commercially. This much has seeped into the columns of the Detroit paper with the belated news of the discovery, as have also a few particulars as to its general characteristics.

As described, "it belongs to the nettle family; has the appearance of the horse chestnut tree, and its leaves and fruit cannot be handled with the bare hands, as the nettles burn the skin like a red-hot iron." In the absence of fuller particulars, it is impossible to proceed further with its identification, but it may be remarked that the tendency to "burn" or "sting" has been discovered in other proposed substitutes for the black and smoky chunks of gum that are rafted down the tributaries of the Amazon.

In due season Prof. Allen carried samples of the new-found gum to England, where it was analyzed by a number of "foremost experts," who, while declaring that they never had heard of the gum, pronounced it the nearest approach to real rubber ever found, and placed its value at nearly double that which the promoters had hesitatingly assigned to it.

Later one ton of the gum was shipped to England and refined in sufficient quantities to test its properties thoroughly, and as a result it is said to develop excellent strength in vulcanized form, although its resiliency is not as great as that of pure rubber. This is thought to be due to an excess of resin which it contains; but the experts state that when it has been put through a deresinating process, costing not over 3 cents a pound, it will be as desirable for all purposes as pure rubber from the trees of the dogbane family.

The gum-bearing trees were found at an altitude of 4,500 feet, and from that point down to sea level no less than three different varieties were found. The trees are said by the natives to live to be very old, these scions of the rubber-snapcracker makers also averring that the life of the trees is not shortened by repeated tapings, so long as they are allowed to rest two months between taps. The trees may be tapped and scored for five days running,

when they must be allowed to rest. Each tree six inches in diameter will yield a pound of gum each time it is tapped, while from five to seven pounds of gum are said to result from each tapping of the larger trees.

The trees are readily propagated from sprouts, while it is stated on the authority of Prof. Allen, the discoverer, that milk was obtained from a rubber-bearing tree that had been cut down and used as a fence post for two years. Like the latex of the true rubber trees, the milk flows freely from the cuts, but almost immediately coagulates upon exposure to the air.

The section where the discovery was made is on the west side of the Sierra Madre range, and is inhabited by Indians, who live in communities owning all of the land in common. Most of the grants date back to the time of King Carlos, in 1547. The inhabitants are in a near-starving condition, and will gladly work for 75 cents a day, Mexican money, their destitution having been brought about by a succession of poor crops. When the new Harriman railroad lines are completed, they will run within 60 miles of the region where the trees abound, so that neither labor nor transportation problems appear to be worrying the discoverer to any great extent.

It is probably essential also to mention the fact that Prof. Allen and his associates have secured concessions from the Mexican Government for a tract of some 800,000 acres of land right where the near-rubber trees grow thickest. Negotiations for further concessions are said to be under way.

### How Horses Add to Cost of Living.

While no small share of the high cost of living has been laid unhesitatingly at the door of the automobile industry, one thoughtful expert is prepared to show that instead of creating a waste of capital, automobile production is capable of creating a vast conservation to the community at large. He figures that the more general substitution of motor vehicles for horses in truck work in New York City alone, for example, would create a saving of \$18,000,000 to \$20,000,000 a year.

"A large percentage of the high cost of living is due to the unnecessary cost of trucking with horses," says the authority in question, who is Charles E. Stone, sales manager of the Alden Sampson Mfg. Co., of Pittsfield, Mass. According to Mr. Stone, \$156,000,000 is expended annually in New York on trucking alone, to say nothing of the wear and tear on pavements and the expense of keeping them clean. New York has 130,000 horses, and over half of them are hauling merchandise. The mere replacement of the horses with the requisite number of motor trucks, in Mr. Stone's opinion, would effect the enormous saving stated.

### WHEREIN SPARK COILS DIFFER

**The Vibrating and Non-Vibrating Types and the Sparks They Produce—Improvements in Coil Manufacture.**

By the design of the coil on the dash of an automobile, most persons who are at all interested in motor cars readily can distinguish whether it is of the vibrating or non-vibrating variety; but that considerable misconception exists regarding them is undoubted.

The type commonly known as the vibrating or trembler coil has a vibrating spring which, when the contact in the circuit is made, produces a buzzing sound, and, of course, this buzzing or trembling will not take place unless the contact is made. In all other respects the two types are alike, but the use of the trembler gives a difference of spark output.

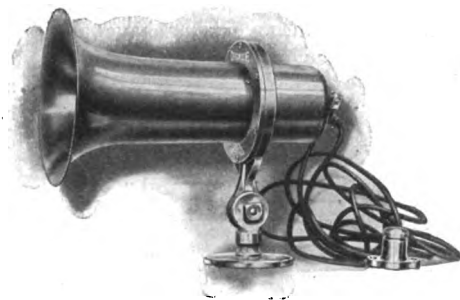
All coils, of course, have a primary and secondary winding. The primary consists of an iron core made up of a bundle of soft iron wires, which are cut the same length, and all properly insulated, and about three layers of No. 20 or 22 copper wire insulated with a double covering of cotton. The most important part of the coil, however, is the secondary winding, and when it is realized that a current under pressure of from 10,000 to 20,000 volts is produced and made to circulate many times around, it is needless to say that the most careful arrangement and insulation of the turns is absolutely necessary to the success of the coil. The conventional manner in which a secondary is made is by winding a fine insulated wire in even layers over a paper tube just large enough to fit over the primary, the layers of wire being separated from each other by one or two layers of thin paper. The required number of layers is between 30 and 50, and when these are wound, the coil is immersed in a bath of melted wax for several hours. Owing to the compact manner in which the layers are wound, the wax does not always penetrate clear through to the center of the windings. This lack of penetration of the wax, which frequently left air spaces in the center of the winding recently has been overcome to a large extent by the employment of a vacuum impregnating process which consists of thoroughly drying and baking the winding in an oven in which a partial vacuum is created. An impregnating compound is then allowed to flow, under the pressure of the atmosphere or aided by a mechanical pump, into the oven.

Between the primary and secondary coils there is no metallic connection whatever. The current from the battery is received by the primary when the contact is made, and it continues to flow until the contact is broken. Only at the instant of the break

does the secondary circuit receive a current in a non-vibrating coil; the current rush passing through the secondary coil at this instant being so tense and of such high voltage that it leaps the gap between the points of the spark plug. A single break in the primary circuit induces enough current in the secondary to produce the resultant spark. The spark produced by a vibrating or trembler coil is a stream of rapid sparks caused by the make and breaks of the vibrator spring, while that made by the non-vibrating coil is a single spark.

#### Dixie Horn from New York House.

Embodying several new ideas, the Dixie horn has made its appearance on the market, with the backing of the big Western Electric Co. It is of the conventional bell or trumpet shape, and operated by an elec-



tro-magnet system. There are but two adjustments, both of which are securely locked; the tone is altered by a screw in the diaphragm. The latter is made rust proof and the magnets are insulated with a special moisture resisting compound. The horn may be mounted on metal parts without any danger of grounding the current, as the casing is completely insulated from the current carrying parts, also sufficiently protected.

The horn, manufactured by Edwards & Co., of New York, and marketed by the Western Electric Co., of New York and elsewhere, is designed to operate on four dry cells or a six-volt storage battery. Either the elbow or steering wheel button is furnished, together with operating cable. As the elbow button permits the horn to be operated while both hands and feet are free for the manipulation of wheel, levers or pedals, it is favored.

#### Columbus Catalog in Striking Colors.

In a striking red and gold and brown "overcoat" of stamped leather effect, the 1911 catalog of the Columbia Motor Car Co., of Hartford, Conn., which just has been issued, presents an attractive appearance which does not disappoint in its hint of interesting things inside. Two styles of Columbia gasoline cars are illustrated and described—the Mark 48, lot 5, which continues for the new season, with detailed refinements, the Columbia conceived in 1906, and a new higher-powered model, Mark 85, the constructional details, motors, chassis, etc., being satisfyingly pictured.

### ELECTRIC VEHICLES IN ENGLAND

**Although Current is Cheap and Conditions Favorable, Their Use is Limited—Market Worthy of Encouragement.**

Despite the small amount of attention which the electric vehicle has attracted in England, United States Consul Halstead, at Birmingham, is of the opinion that the field is not without promise, owing to the eagerness of the local central station people to develop the market for current, a condition which he thinks American manufacturers might turn to their advantage.

"It has been argued in England that the electric vehicle is not suitable because its use is practical only in the towns, it being very difficult to recharge the batteries in the country," says Consul Halstead. "This prejudice undoubtedly would be difficult to overcome, so it would appear unwise unhesitatingly to advise manufacturers of excellent electric automobiles in the United States to endeavor to cultivate the British market. Nevertheless an investigation of the field would, it seems, be worth while, provided such investigation were made by an expert. In favor of the electric automobile is the heavy tax on gasoline for motor purposes, and the fact that many of the electric supply stations in the United Kingdom are controlled by municipal authorities who are enterprising in their efforts to increase and extend the use of electricity.

"A British trade journal asserts that the simple, easily controlled electric vehicle in its own sphere is in many ways superior to the gasoline motor car and that if it were accorded anything like the same attention as the latter demands and receives it would be the rule rather than, as at present, the exception on the streets of British cities.

"One borough council in London is offering a rate of one cent per unit for a minimum annual consumption of 100,000 units taken at any one of the corporation's three electrical depots during certain hours, and this action may be traced to inquiries for a cheap supply for battery charges for omnibus and commercial vehicle purposes. A project for the construction of 50 electric drays and vans for hiring out to commercial firms is now on foot.

"It is quite certain that electric stations, whether controlled by municipal authorities or private companies, would be glad to make a suitable rate for electricity for batteries for electric vehicles provided there were any indication than in this way a larger demand for electrical supply would follow, particularly as batteries could be charged during the day and when the demand for electricity is so much less than early at night."



# Ignition Systems and Their Varied Effects

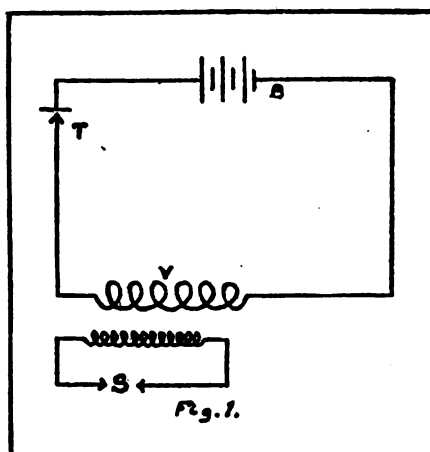
One of the most puzzling mysteries of misfiring in an ignition system which appears to be in perfectly good order may arise from cross induction between the high tension conductors, when they are arranged close together and enclosed in a single pipe. The effect is to cause a stray spark to occur in a cylinder which is just drawing in a fresh charge, thus causing back pressure and resulting in missing the next explosion. This bit of little-known information was imparted by C. F. Kettering, of the Dayton Engineering Laboratories Co., Dayton, O., in the course of a paper read before that company's annual salesmen's convention. While concerned mainly with the means of ignition and of the various means systems, leading up to a description of the Delco system made by the Dayton company, the paper affords a concise and unusually informing resume of the requirements of ignition and of the various means by which they are satisfied.

"When internal combustion engines were first introduced, the hot tube ignition was used. In this system the charge is ignited by means of a flame or heated surface. After this came the make and break system where an electric circuit is mechanically broken with the cylinder and the charge fired by the resulting arc. This system is used at present on most of the large stationary engines and a few automobiles. Lastly, came the jump spark system in which high tension current is made to jump across an air gap between two metal points. In order to obtain this high tension current from batteries, it was necessary to use an induction coil and the old form of Ruhmkorff coil was tried. This coil did its work fairly satisfactorily, but with an excessive drain on the batteries, and for this reason battery ignition fell into bad repute and the magneto was introduced," said Mr. Kettering in prefacing his subject.

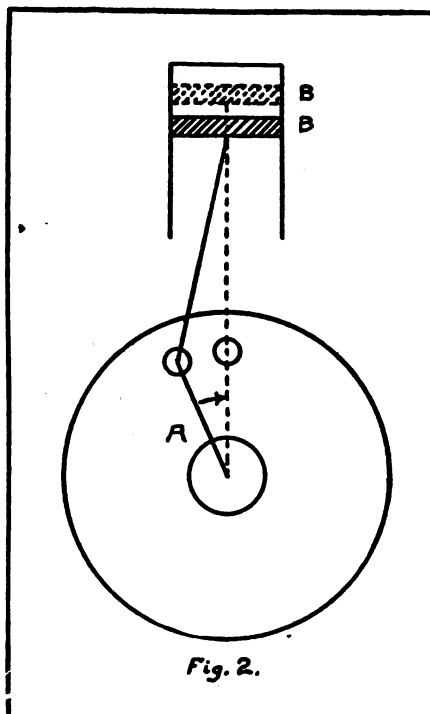
"Ignition apparatus is often blamed for faults which rightly belong to the grade of fuel used, the carburetter, or the design of the engine," he continued. "It is an undisputed fact that the force with which a rifle discharges its bullet depends on the grade of powder used and the design of the barrel—that is, length and bore, etc., and not on the size of the cap used to ignite the powder. The ignition of the gas in the cylinder of an engine is a similar case, and the size of the spark has exactly the same effect as the size of the cap.

"The three essential things required for good ignition are, 1st—the spark, 2nd—the timing, and 3rd—the spark gap. The general systems now in use on automobiles

are as follows:—1st—the battery, 2nd—the double, 3rd—the dual and 4th—the magneto. Figure 1 shows a simple diagram of a jump spark battery system for a single cylinder engine. B is the battery, T—the timer, V—the vibrator coil and S—the spark plug. When the timer T closes the pri-



mary circuit there is always a small interval of time before the spark appears at the plug. This is called the lag of the spark and varies from .001 to .005 seconds. This may seem a very short space of time, but



in it the piston of a high speed automobile engine travels over a considerable distance. Take, for example, an engine running 1,800 revolutions per minute or 30 revolutions per second, then during .001 of a second

the crank pin will move through  $30 \times 360 \times .001 = 10.8^\circ$ , the angle A in Figure 2, and the piston will move from B to B'.

"With vibrating coils, the timer T sometimes breaks this primary current, as the vibrator is just as likely to be in contact at the time of this breaking as not. It is readily understood that if the timer should leave contact at the time the circuit is broken at the vibrator no spark would occur, but if it should occur when the vibrator contact is closed the spark would occur. This burns the timer and results in its being pitted and causes great mechanical wear. It is on account of this mechanical wear that roller type timers have generally been adopted, although from an electrical standpoint they are not so satisfactory, and they are not necessary when an ignition system is so built that there is no sparking at the timer contacts. The burning of the timer will cause irregular firing, because of the uncertainty of the primary contact.

"In addition to the electrical lag, there is another time element which enters into the ignition problem; it is called the firing constant and is the length of time between the point where the spark appears in the cylinder and the time when maximum pressure occurs. The maximum pressure in the cylinder of an engine should occur as soon after the piston passes dead center as possible. The angle through which the spark can appear at the plug and maximum power be obtained from the engine is called the critical angle. It is never more than  $10^\circ$  to  $15^\circ$ , and for accurate timing should be within  $5^\circ$ .

"The requirement for a good system of ignition is to get a cold engine to fire with a rare mixture and this is the only time where a hot spark is ever needed. The gasoline enters the cylinder in an atomized, rather than a vaporized condition, and some heat is needed at the terminals of the spark plug to vaporize a small quantity of the gasoline. This condition occurs only in starting a cold engine in winter, or with low gravity gasoline.

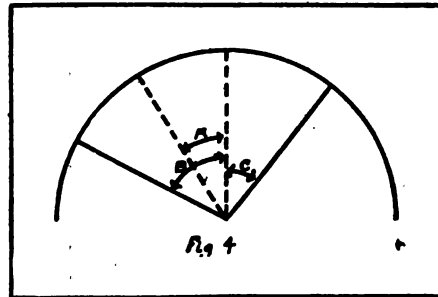
"One of the advertising methods used by magneto manufacturers is to show how long a spark their machine will give in the air, but this is no indication of what it will do when subjected to the pressure of a cylinder. For instance—a voltage that will give a  $\frac{1}{2}$ " spark in the air will give only 1-16" spark when subjected to a pressure of from 16 to 20 pounds. If the temperature of the gas is increased to from  $200^\circ$  to  $300^\circ$ , this same voltage will spark a 1-16" gap at a pressure of from 60 to 70 pounds. It is a fact that battery systems

use a wider spark gap than magneto systems, which is an advantage when firing lean mixtures.

"The resistance of the secondary of the induction coils varies from 500 to 7,000 ohms. After the spark gap breaks, the current that flows depends entirely upon this resistance. If the spark given by a magneto is examined with an oscillograph, it will be found to resemble the form shown in Figure 3. The peak of the curve will be a white streak and the part at the right will appear as yellow flame occurring from 10° to 15° later than the white streak, or after the explosion is over, and serves only to burn up the spark plugs. This is the flaming or caterpillar part of the spark so widely advertised by magneto manufacturers. The rate at which the explosion takes place is a spark gap factor depending on the width of the gap. The wider the gap, the quicker the explosion.

"In a magneto system, dead center is the latest place at which the explosion can take place. Under ordinary conditions an advance of about 30° can be obtained, but

speed. Pushing the lever beyond this point, the engine will run faster on the batteries than on the magneto, because they have greater advance. On account of their limited angle of spark variation, many magneto manufacturers advise the elimination of the spark advance lever and the use of a fixed point of ignition, speed variations being obtained by adjusting the throttle. When cranking an engine on magneto, there is considerable danger of its kicking back, owing to the fact that dead center is the latest spark obtainable, but the in-



ertia of the fly wheel is usually sufficient to carry the engine past dead center and avoid this.

"The necessity of using more than one spark gap is not important in automobile engines, but in the large producer gas engines it is one of vital importance, because producer gas is rather hard to ignite under any circumstances.

"On two-cycle engines the greater flexibility of the battery system is very useful, because all the regulation must be done by spark advance, and until the magneto gets a large angle of advance it will be at a decided disadvantage.

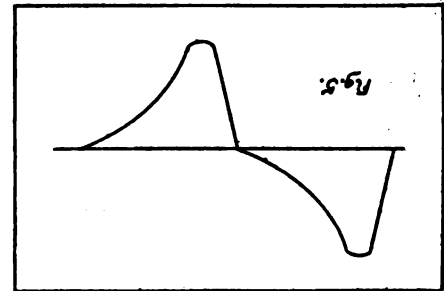
"Figure 5 shows the current waves obtained from a magneto, the reversal of the current occurring every half revolution. From this it can be seen that very little current is flowing half the time and the width of the peak wave is what determines the angle of advance the magneto can give. In the dual system, the same coils are used by both the battery and the magneto, and these coils usually take an excessive amount of current so that the life of the batteries is very short.

"The repairs on a magneto during a season are very apt to cost as much as the number of batteries necessary for battery ignition. A magneto will only run from 5,000 to 6,000 miles before it requires an overhauling, at which time the primary contacts usually need renewing, the roller on the timer is worn and the magnets require remagnetizing. Even the most expensive magnetos on the market will only run from 10,000 to 15,000 miles before they begin to show a very marked depreciation. A trip to the repairman will usually cost about \$10.00.

"A spark gap 3-64" is about the best to be used with lean mixtures. With the rich mixtures, a shorter spark gap is bet-

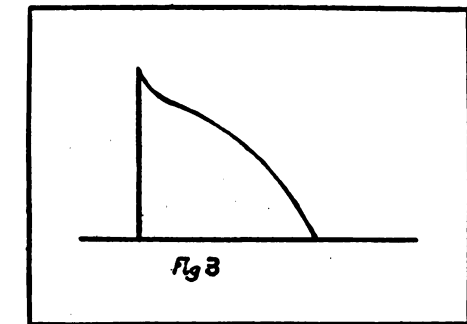
ter, because in this case the heat of the spark has some effect. A number of experiments have shown that the best results are obtained by connecting the positive side of the secondary to the frame of the machine and the negative to the high tension terminal of the plug—that is, by having the current flow from the frame to the plug. The heat intensity of a single spark is higher than that of a number of sparks such as are obtained from vibrator coils. With a single spark system the current required per spark decreases as the speed of the engine increases, about the same amount of energy being required for all speeds, except the very slow ones. An increase in the number of cells has the same effect as advancing the spark since the coils build up more quickly, but contacts are more liable to be burned with a large number of cells in series. A battery will operate satisfactorily so long as it shows three amperes.

"Misfiring is often caused by the static induction due to the high tension wires being run through the same pipe from the spark coil to the plug. When a high ten-



sion current is sent through one of these wires, it often induces a current in the others, which may cause a spark to be formed in one of the cylinders in which the charge is just being drawn in. This charge being under very light pressure ignites all the more easily, not only causing the engine to kick, but making it miss the next explosion. If braided wires are used, the braid often gets wet and this helps to carry this static charge more easily."

The Delco system, with which the remainder of Mr. Kettering's remarks were directly concerned, is of the single-spark order, and includes a special controlling relay, which causes the primary current to be interrupted and thereby produces a spark from the secondary windings of the induction coil or coils. The relay replaces the master vibrator of the synchronous spark system, and while ordinarily yielding but a single spark, may be made to vibrate rapidly upon pressing a starting button, thus delivering a continuous spark to the cylinders when it is desired to put the motor into action. The system is built with multiple unit non-vibrator coils, and, for use on 1911 cars, with a single coil unit. It is also adapted to be employed in conjunction with a magneto.



some manufacturers have obtained considerable more advance by shifting the pole pieces of the machine. With a battery system, as much advance and retard as desired can be had and it is usual to give 40° retard and 60° to 70° advance. The comparisons of the two systems is shown in Figure 4. Where the angles are laid out on the crank pin of the engine, A represents the angle of advance possible with a magneto, B that usually given with a battery, and C the angle of retard of the battery. This accounts for the well known fact observed in most of the dual and double systems that on shifting from battery to magneto the car will speed up. This is easily accounted for. One lever is used for the spark advance of both battery and magneto. By referring to Figure 4, it will be seen that the extreme position of this lever will correspond to dead center on the magneto and 40° retard on the battery. If the lever is in this position when the switch is thrown from battery to magneto, it will mean a spark advance of about 40° and the car will naturally speed up. This angle will be decreased as the lever is moved around until a point can be found where there is no advance and changing over will cause absolutely no effect in

**WHERE EVEN BEGGARS MAY RIDE**

**Detroit Provides Closed Cars for the Transportation of Their Kind—Two Months' Use Exceeds 12,000 Miles.**

The old, time-worn maxim that, "If wishes were horses beggars would ride," almost has become a reality in Detroit, where, following the supplanting of the horse in other fields, automobiles have been

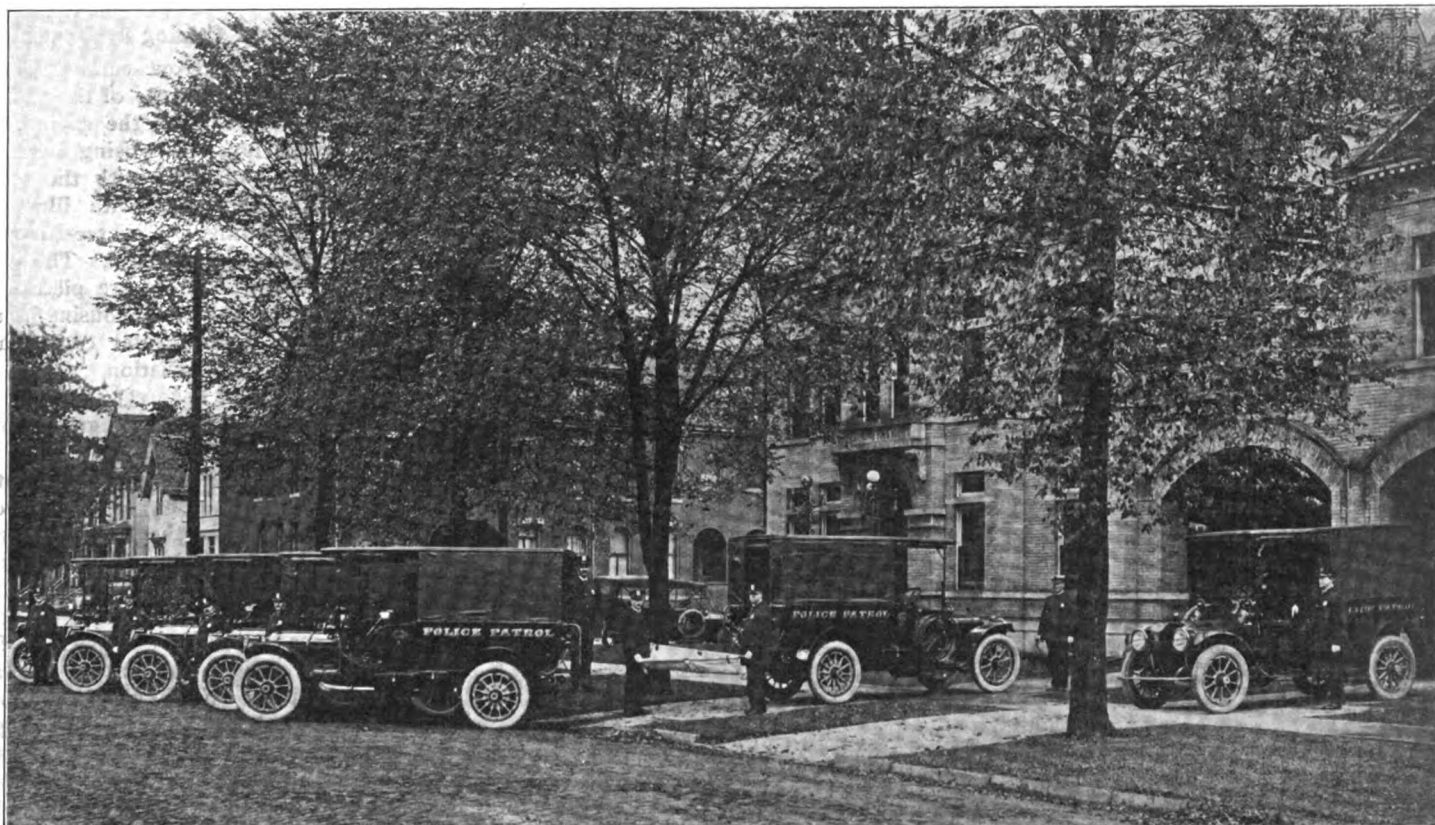
have gone into this branch of municipal betterment to such an extent as has Detroit, where eight cars have been in use for the past two months, and have proved extremely satisfactory and economical in their operation.

The cars are 30 horsepower stock chassis with special bodies and Morgan & Wright tires. Seven of the cars are used in routine work, and during October and November they responded to 4,536 calls, aggregating a total of 12,589 miles. The eighth car is

**WHEN THE LAMP GLASS BREAKS**

**Its Replacement is Not Such a Difficult Task as May Appear—How it May be Accomplished.**

When replacement of a broken glass in a headlight is necessary, not every repair shop is equipped or knows how to perform the service, nor is the motorist himself often aware that with the aid of a



DETROIT'S FLEET OF MOTOR CARS IN WHICH BEGGARS AND OTHERS MAY RIDE—OFTTIMES AGAINST THEIR WILL

provided that beggars—and others whether merely impecunious or offenders of the general peace of that Michigan city—might ride. In other words, in order to have his wish gratified, a person with a desire for a joy ride, but without the necessary wherewithal, need only "start something." By the time he is well started, and before he has his second wind, a speedy, quiet, closed car, driven by a careful chauffeur in a neat blue uniform with gilt buttons, will be placed at his disposal. An equally neatly uniformed "footman" will hop from his seat beside the driver, and, with manners that would do credit to a Chesterfield, hand the gentleman of leisure or nimble fingers into the smooth-running municipal automobile.

The automobiles are operated by the police department of Detroit for police and ambulance duty in that city and its outlying sections. Of course, automobiles are used in many different departments of several cities of the United States, but few

styled "the flying squadron," and is reserved for special duty requiring greater speed than is necessary with the others. A record of its usefulness during the period from October 1st to December 1st shows a total of 750 miles covered in answer to 242 calls during the two months.

**Court Defines "Nerve Wrecking" Noise.**

On an appeal, Chief Justice Start, of the Minnesota Supreme Court, last week judicially defined the noise immediately following the cranking of an automobile as "nerve wrecking," and held a lower court in error for dismissing a suit for damages instituted by Miss Clara Fisher, of Elmwood, Minn., whose horse had been frightened and ran away as a consequence of the noise made by the motor in an automobile owned by John McGrath. The trial judge had dismissed the suit before it reached the jury on the ground that the evidence failed to show negligence on the part of the defendant.

simple steel glass cutter, obtainable in any hardware store for 15 cents, such repairs may be made at home with ordinary window glass of "double strength," which is also inexpensive; little time or skill is required.

With a pair of shears or a sharp knife cut from a piece of paper or cardboard a templet or pattern the exact size of the glass. Then place a piece of the window glass over the pattern and scratch the glass with the cutter in a circle of the diameter required. In this connection there is one precaution to be observed in using inexpensive glass cutters made of steel. The first cutting or scratching of the glass must be sufficient, for, unlike the diamond, the steel cutter dulls rapidly when it is used to retrace the first cut. One cutting with a very moderate amount of pressure will be all that is required, however, for double-strength glass will break readily with one cutting even on a circle of quite small diameter. After the circle is cut or

scratched, a pair of plyers can be used to advantage in breaking away the glass down to the mark.

The next and final step is to cut or scratch the glass along three parallel lines, so as to divide it into four parts of equal width. This is a very simple operation when a rule or something of the sort is used for a straight edge, and it is the secret of easy work in getting the glass in the frame. With the glass solid, it will be found very difficult indeed to get it in the frame without breaking, unless it has been cut so small as to be decidedly loose, in which case it will rattle and perhaps come out in the first rough running. When cut in sections, however, one piece can be put in at a time, beginning with the outside pieces in such a way as to get a good tight fit without much skill or effort. Moreover, with the glass in sections there is much more provision for expansion and contraction, and consequently less danger of breakage from this cause, and with the cuts running vertically, the appearance of the lamp is not injured.

#### Why Universal Joints Run Dry.

On a great many cars the lubricant of the universal joint, or joints, as the case may be, is insured by a leather boot, tightly laced and fastened to the propeller shaft by brass rings at each end which are tightened by means of small bolts and nuts. Should the lace become untied or broken or the boot slip out from under its fastenings or become split, centrifugal force will cause the grease in the boot to be thrown out and in a short time the joint will wear dry. The symptom of the condition is a slight but perfectly audible thump, usually more noticeable from the tonneau, and which is accentuated, not by the speed of the engine, but by the speed of the car. Occasionally a perfectly healthy-looking boot will temporarily allay suspicions, but a line of grease on the under side of the tonneau flooring more generally indicates the trouble. Most frequently the tightening rings are the offending members, especially on new cars, where, as soon as the grease has thoroughly permeated and softened the new leather, the boot slips out from under the retaining ring, with the resultant leakage of grease. In repacking the universal, care should be taken to see that the boot is absolutely tight, for where grease can get out road dirt and grit can get in.

#### Practice that Renders Restarting Easier.

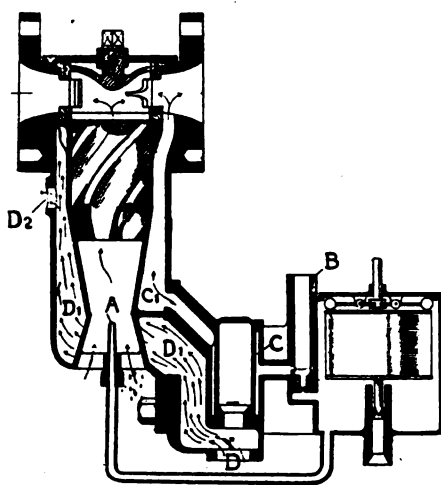
Drawing in a big charge of gas by opening the throttle wide just before stopping the motor is a good practice, particularly during cold weather. The charge thus drawn in often will permit restarting on the spark or facilitate restarting in a measure, at least. The throttle should be opened after the spark is cut and while the engine is running.

## TO BREAK UP THE GLOBULES

University Professor Undertakes the Task  
—Designs a Carburetter to Serve the Purpose—How It Operates.

In the many varied methods of carburation, the chief difficulty with not a few of them seems to be that the gasoline does not vaporize completely and that a portion of the fuel enters the motor in globular form.

A method of relieving this difficulty has been devised by Professor W. Morgan, of Bristol (England) University, and a co-worker, E. B. Wood, in a carburetter which not only atomizes fuel as does the ordinary spray jet carburetter but also completely



vaporizes a portion of it. The manner in which this is accomplished, as shown in the accompanying illustration, is that a specially shaped tube, B, having a fine hole at its lower end and being quite open at the top permits a certain quantity of additional fuel to flow from the float-chamber into an annular space, C, which is kept hot by exhaust gases entering the jacket, D1, at D, and flowing out at D2; and that the fuel vapor formed in the annular chamber, C, is then free to pass by way of the passage, C1, direct into the branched intake-pipe. A steady flow of gasoline thus is able to reach the engine whenever it is running, whatever may be its speed and whatever may be the extent to which the throttle valve is open. The precise rate of flow depends only upon the size of the hole in the base of the tube, B, and the amount of air that passes with it depends primarily upon the area of the small exit orifice through the side of this tube into the heated chamber.

As far as concerns the relationship of the parts, the illustration is purely diagrammatic, being distorted to show more clearly the action and principle of the carburetter. The float feed chamber is shown at a considerable distance from the spray

jet, A, whereas in reality a short passage in the casting replaces the long external connecting pipe.

As to the air passage and the jet, A, there is nothing unusual as compared to other single jet carburetters. The air in passing up, sprays the fuel with it, and the two pass along together through the throttle valve at the top with the intake pipes. Immediately above the jet is a spiral mixer which tends to set up a swirling action, ensuring a more complete mixture of fuel and air.

#### Pierce-Arrow Catalog in Handsome Dress.

The Pierce-Arrow catalog for 1911 is out. That it is worthy of the name it bears goes almost without the saying. It is an edition de luxe, comprising a double cover of brown and gold, with the letter press profusely illustrated with illustrations in colors depicting the Pierce-Arrow cars in this country and abroad. The page illustrations, which really are pictures suitable for framing, show a limousine in the heart of a New York theater crowd, a touring car at a foreign aviation meet, a runabout on a stretch of country road, and a special touring landau in the foreground of a scene in picturesque Holland, while scattered through the pages are smaller but no less pleasing illustrations of the Pierce-Arrow car in service in the four quarters of the globe. Photographic reproductions of the different styles of bodies and of the chassis and parts which go to make up the assembled car show little departure from the original design, and except for a steady improvement in detail they remain the same. No lengthy technical description has been undertaken, but the writers of the catalog have succeeded admirably in placing before the motoring public in language most simple and easily understood such information as is generally deemed absolutely necessary to the intending purchaser or to the past owner. Tabulated by years, Pierce-Arrow records and awards in touring contests and reliability runs form an interesting conclusion to the volume.

#### Emergency Clamps For Broken Springs.

Usually it is the top leaf that is fractured when automobile springs break. Were the manners of injury more varied a repair kit would be somewhat complicated, but as it is the provision for an emergency, repair is very simple.

A small emergency clip and a strip of steel should be carried in the tool box. When a spring is broken, all that it is necessary to do is to loosen and tighten a few nuts in order to clamp everything together by placing the piece of steel over the break in the top leaf, and to set the emergency clamp on the outside of the break. The car then may be continued in service until the broken leaf can be replaced, which should be done as soon as possible.



## The Proper Garaging of Electric Vehicles

Characterizing electric current as the "hay and grain" of the electric vehicle, C. L. Morgan, manager of the maintenance department of the General Vehicle Co., Long Island City, sought to emphasize the importance of the garaging problem to the operator of commercial electrics in a paper read before the first regular monthly meeting of the Electric Vehicle Association of America, held in New York on Tuesday evening, 29th ult. Carrying out the metaphor to the requirement of an occasional figurative bran mash in the form of a tonic charge, he made it very plain that the operator who neglects the proper care of his electrics is as apt to receive unsatisfactory service as the man who fails to attend to the proper stabling of his work horses. "The Proper Garaging of Electric Vehicles" was the title of the paper.

That the garaging of the electric commercial is quite a different matter from the maintenance of an electric pleasure car is one of Mr. Morgan's points that already has been brought out by the Motor World. "The pleasure vehicle, as garaged by the owner, is satisfactorily established, and, where garaged publicly, is both a commercial and operating success," he remarked.

"The commercial machine, however, has at times been more or less unsatisfactory, because handled on the same basis as the pleasure car, and it is our province to point out, if we may, the pitfalls and bypaths, so that both the owner and the public garage man may take the road to success.

"Considering first the owner operating only a few cars. Shall he garage them himself or turn them over to a public establishment?

"In the larger cities if a satisfactory public garage is so situated as not to cause an excessive amount of dead or useless mileage, a greater success to the owner measured both financially and in continuity of service will probably be obtained by public garaging. The reason for this is that, with few exceptions, the small user cannot obtain a rate for current such as to save an amount sufficient to justify the expense of proper attention. The garage man usually purchases his current at a rate varying from two to three cents, while the owner pays two or three times as much.

"Special conditions naturally alter this statement. For instance, a concern which has an isolated plant of its own usually has a competent engineer, and the necessary charging current and attention can be furnished at little or no extra expense.

The same result will be obtained generally where the small user entirely replaces his horse by electrics, for he will save in space and general cost providing his stable man properly enters into the spirit of electric operation and follows without question the suggestions of the manufacturer.

"Broadly speaking, the owner who has no place for a garage or is not disposed to entirely change his method of transportation, should publicly garage his machines unless he has five or more. This remark is intended to apply particularly to Boston, Philadelphia, Chicago and New York. Granting that careful consideration indicates that the owner without any extraordinary expense may garage his machine himself, what are his problems and how will he obtain satisfactory results, both in operation and upkeep?

"It is presupposed that the space to be used for the garage is supplied with a reasonable amount of heat and light. This may seem like an unnecessary statement, but lack of one or the other has been the actual cause of inefficient service in so many instances that we may not overlook these two requirements.

"The equipment for either alternating current or direct current charging should be simplicity itself, and as near fool-proof as is possible, of a type adapted to the ordinary man and necessarily ruggedly constructed. Both types of boards are now well standardized, one of the large electric companies recently having brought out a new rectifier designed especially for commercial service and a great improvement over others.

Tool and equipment investment, except in larger garages, is exceedingly low. In nine cases out of ten, \$20 will cover both the tools and supplies which have to be purchased.

"The need for care in charging is really self-evident, for current is the hay and grain of the battery, and just as the stable man occasionally prescribes a bran mash or a change in feed for horse number so and so, so does the garage man handle his batteries, treating each with thought of what has been done to-day and what to-morrow calls for. A little extra attention to these actual operating conditions will show a marked increase in efficiency, meaning a decrease in the cost of current per mile. Take, for example, service such as an ambulance has to furnish. It is erratic, but seldom of great mileage, but must always be available. A change each time to full battery capacity is certainly a tremendous waste, so practice shows that an arbitrary restriction should be placed on the maxi-

mum charging voltage, or in some other line of work, Tuesday may always call for the maximum mileage, and precautions must then be taken to turn out the battery on Monday night with a charge of the greatest amount.

"To obtain continued success, there should be laid out an absolutely cast-iron program for inspection and adjustment, and some individual must be held personally responsible for the execution of this program.

"The system proposed will call for the strict following of the simple directions given by the manufacturer for charging, lubrication and adjustment, backed by a regular routine of inspection.

"This inspection is neither cumbersome nor expensive, if properly handled. Thirty minutes for a car is ample, and once established controllers are tried, fingers and connections tested, brakes examined for proper grip as well as freeness, motors opened, brushes tested, wheel bearings tried, chains and gears oiled and examined, lamp equipment tested, battery terminals cleaned and greased; in fact, every part from steering gear to motor is either found 'O. K.' or marked for attention.

"Probably the strongest way to present a routine of this kind will be to consider a specific instance; an equipment of three 2,000-pound vehicles, each working from 30 to 35 miles daily. Each night the caretaker, who is also responsible for three gas pleasure cars, handles his business as follows: The day's mileage for each machine is registered on the charging sheet, and followed by hourly readings of both amperes and volts for each machine. Every other night he carefully checks over one machine, lubricating steering knuckles, etc. At periods of one week, arranged to come on the alternate night to this lubricating and adjustment, one battery is removed and watered, and a record is kept, so that on every fourth watering, or once a month, the battery may be charged out of the vehicle, and at the end of the charge the gravity of each cell tested, and, if needed, equalized.

"This means that it is impossible for any excessive wear to occur on any truck or any low cells to develop without being noticed long before becoming serious, and it makes possible the leisurely ordering of the necessary replacement parts and the installation of the same.

"Parts which are active in the sense that they will be needed without question are carried in stock. They include chains, pinions, controller fingers, battery jars,

motor brushes and the like, but probably no more than \$50 worth all told. Furthermore, as both front and rear wheels are alike, it was deemed wise to purchase an extra rear wheel, without brake drum or sprocket spider. This wheel coming into service when tires need repair or replacement, it being interchangeable, either front or rear.

"It will readily be seen that actual time is needed nightly to maintain such a system, and to show the degree to which organization develops this in practice, let us cite the case of 26 machines which are actually cared for and kept in excellent physical condition by three workmen, one on during the day and two during the night. This does not include, of course, the washing nor painting, the latter being handled automatically, two machines always being out of commission, one in the paint shop and the other held as a reserve wagon.

"There is just one other routine operation which is not listed in the preceding program for 2,000-pound machines, and that is, the complete overhauling of each vehicle yearly, or at the end of 10,000 miles. A three and one-half or a five-ton truck should have a complete overhauling every 5,000 or 6,000 miles, this depending to a considerable extent, however, on the character of the driver and service, whether the vehicle is overdriven or overloaded. An arrangement of work and inspection such as this provides for everything except accidents.

"At the recent convention, Mr. Hayden Eames dwelt on one principle which is successful and of special interest at this time. A single vehicle is kept at the shipping platform of a small store, it is regularly charged and cared for by the night watchman, but to assure proper adjustment and battery care, this machine pays semi-monthly an overnight visit to a nearby garage, where the batteries at a purely nominal monthly rate are flushed or equalized, chains oiled and adjusted, etc.; or, in other words, this machine is intelligently left alone.

"Perhaps a word or two in regard to expert labor may not be amiss at this point. One of our most successful installations is that of a concern which entirely replaced its horse equipment, but which put the care and operation of their electric vehicles right up to the stable man. He needed no magnifying glass to read the handwriting on the wall, and immediately demanded of the manufacturer's expert the complete taking apart of a machine and the proper reassembly and adjustment. The whole of one Sunday, five or six years ago, was spent in this fashion. The next thing that he asked for were some written rules for handling those blame batteries. These rules were forthcoming, and to-day the only thing we hear from this equipment, which has nearly trebled in size, is an occasional

order for parts, and some of the highest records we have of service from both battery and chains have been made by this burly Irishman, who no longer has to get up in the middle of the night to attend to a sick horse.

"It can be positively stated that if the owner does not try to obtain daily the last mile possible from his batteries, that any man of ordinary intelligence can properly care for and successfully operate the modern electric vehicle. Those few cases which require expert advice can usually be traced to the owner's desire to work his machine to its utmost capacity or to a neglect of instruction.

"In large installations, as an adjunct to the garage proper, many schemes may be adopted for the betterment of service. These readily suggest themselves after actual records and data become available. One concern, operating both gas and electric trucks, pays a small monthly prize or bonus to the driver showing the best records, the most work at least cost. Another concern stipulates that a certain amount of goods must be handled, but pays a premium on everything done in excess, and, therefore, shows delivery records which some others in the same line of business would claim as impossible. It is well to remember that even a small amount as a bonus achieves wonders at times. Sixteen extra miles and a proportionate extra number of deliveries were obtained at a figure so low actually to appear laughable.

"Let us consider the pleasure garage man who at this time believes it is wise to add a few commercial vehicles, something which has not generally been a success, apparently because of lack of appreciation of what the power truck owner really wishes to purchase in the line of service. One example tells the whole story. The writer recently inspected three or four machines which had been kept for a number of months in a successful pleasure-car garage, and found every machine in need of adjustment or minor repair. On taking the proprietor to task, he stated he had received no orders from the owner to do such work, and added, 'There is so little money in the business that I think I'll throw the machines out.' Five minutes' conversation impressed on him that the owner wanted and would pay for continuous service, and that a failure of any part on the road could not be justified by the absence of repair bills at the garage. This same man is now handling his business in an up-to-date fashion, reporting to the owners the need for adjusting chains, the replacement of parts, etc., and has so won their confidence that in every case these orders are now obtained over the telephone, and his income increased at no expense of either time or nervous energy.

"The private owner often loses track of the great importance of accurate records.

He is purchasing mileage when he buys tires or batteries, but keeps no real data in regard to what is obtained, and is, therefore, unable to make true comparisons or investigation. How valuable data of this kind become is readily shown by reference to one concern who were overworking their machines, but who, after data were collected, reluctantly admitted that the last 10 per cent. of the business taken cost more than three times the amount it should and, as a matter of fact, was actually handled at a loss.

"The modern public garage for commercial vehicles of any type is handled on no different system than has been previously outlined. Still, let us emphasize the vital requirements by sketching briefly the organization and operation of a large and most successful electric commercial vehicle garage, that of the New York Transportation Co.

"An adequate system of inspection of vehicles and batteries is automatically carried on. Proper charging is attended to, and batteries are regularly flushed and equalized. A room is provided for drivers, and that is the only place where they are welcome, but to insure perfect co-operation and harmony, a system of drivers' complaints is in constant operation; a driver making out in duplicate his complaints. This is turned over to the night foreman, and later the driver is obliged to sign for the elimination of his kick, either because parts have been replaced or the adjustments made.

"The night inspectors, on finding work necessary within the next few days, report the same to the superintendent, who hands to the driver a slip requesting authority to make adjustments or needed repair. In nine cases out of ten, the driver is authorized to order such work, and as in the case of complaints, later certifies in duplicate to the work having been done.

"If the driver does not authorize the work, the necessary repair is at once called to the attention of the owner, with a brief explanation of the need for the same, with the result that it is ordered done, and finally certified to by the driver.

"These various duplicate records are attached to the monthly bill, eliminating once for all discussion regarding services rendered.

"In other words . . . success, whether it is of the individual care of a few machines or of the addition to the pleasure garage of a few commercial vehicles, or of the large public garage, that success is absolutely dependent upon and made by system, and this system differs in no essential, whether one or fifty machines are to be cared for, and that system is 'Inspection.' But . . . system alone will not produce, there must be the right-sized man back of everything, and, therefore, I repeat—select some individual and hold him responsible."

**CHALMERS'S BIG CONVENTION**

**Agents from Everywhere Gather at Detroit  
—Pleasure and Business Intermingled  
—Huge "Scare" at Banquet.**

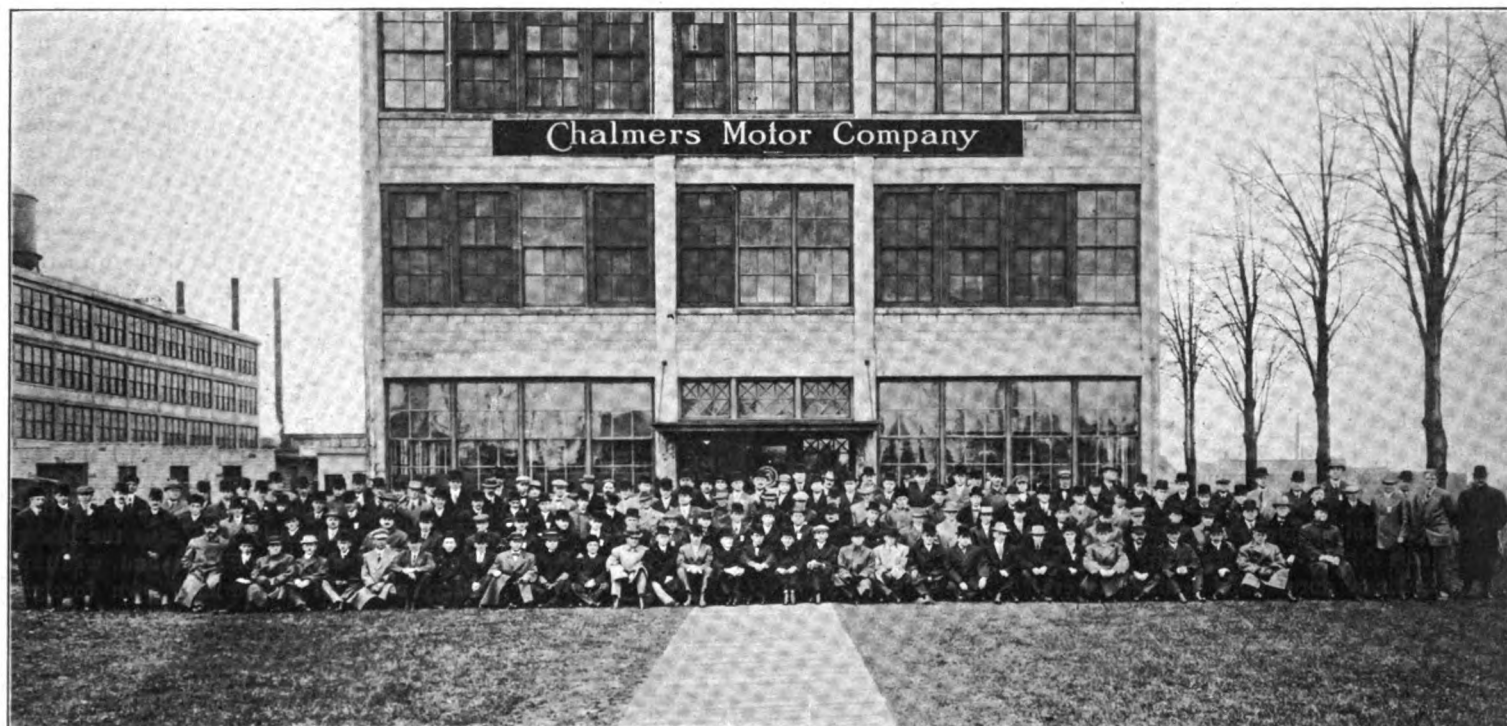
One of the largest, if not the largest, of the many agents' conventions held in Detroit this year convened at the factory of the Chalmers Motor Co., the 28th, 29th and 30th ult. and 1st inst. More than 150

usual interchange of felicitations, with one or two surprises of an unusual character. One was the presentation to the company of an elaborate library lamp, destined for the directors' table, the gift being a tribute from the agents. Another was the presentation of a handsome tea service to Mrs. Chalmers. Of a totally different nature was the turmoil occasioned by the sudden entry of a number of newsboys bearing an "extra" edition of the "Chalmers Exhaust," in which flaring headlines proclaimed the

**ENGLAND'S FEAR OF INVASION**

**Increase of American Exports Causes It to  
Take an Acute Turn—Three American Consuls Proffer Advice.**

Recent activities of several American automobile manufacturers in preparing to expand their business in the British Isles have served to fan the long smoldering coals of distrust and antagonism in the



CHALMERS DEALERS AND SALESMEN GATHERED FOR THE ANNUAL CONVENTION

of the branch managers, dealers and salesmen who expound the Chalmers gospel were present, the territory represented stretching from the Hawaiian Islands to New York and from Winnipeg to the City of Mexico. The convention opened with a trip through the factory where the new models were inspected in the making and where methods of precision and production were studied at first hand. The more fruitful meetings, however, were those at which Hugh Chalmers and other speakers presented formal papers representing the essence of expert study of various problems connected with sales administration, garage and upkeep matters.

Between whiles the salesmen were wined and dined and otherwise entertained to their hearts' content, and as becomes the chosen guests of a great corporation that is privileged to entertain on a large scale but once a year. The crowning event on the social side of the program was the banquet, which concluded the session and at which a few invited guests, the mayor and mayor-elect of Detroit among them, were privileged to join the conventionites. This occasion was blessed, in addition to the

news of the burning of the factory, the assassination of the president and other catastrophies no less appalling, all of which were devoured none the less eagerly when it dawned that it was all a hoax.

**Seeking to Control Truck Contests.**

Apparently believing that there is a sufficient element of sport in truck contests to justify their promotion and control, the Motor Truck Competitive Association was temporarily organized in New York on Friday last, 17th inst. J. H. Hemstreet, who, with E. L. Ferguson, was engaged by William Randolph Hearst to conduct the New York American's recent truck contest, was elected chairman and Ferguson was promptly nominated for the chairmanship of the contest committee. E. A. Levy (Benz) was secretary of the meeting at which there was appointed a committee to draft a constitution and rules, which committee consists of C. E. Stone (U. S. Motor), F. B. Porter (Chase), R. F. Alcott (Knox) and G. Hartman (Hart-Kraft). The idea prevails that the organization shall be national in scope, with power to issue sanctions, enforce rules, etc.

bosom of the English industry into the flames of more or less acute fear.

An incidental effect of the scare has been to cause several watchful American consular representatives to take note of the hazard involved in injudicious exploitation and to issue warnings through the central bureau, at Washington, indicating the particular obstacles which must be overcome in establishing a lasting foothold in Great Britain. Consul Church Howe, at Manchester, views with considerable apprehension the mode of procedure of certain automobile salesman which "is being severely criticised" and suggests "that the methods to be adopted by them in the near future will not appeal to the British public." Two of the schemes to which objection has been taken he mentions in particular. One is an offer to renew at the end of twelve months the essential parts of every sixth car that is sold; the other holds out the bait of a new car for the purchaser who can show the biggest mileage for 12 months.

"To the English purchaser this form of advertising is not alluring," Consul Howe continues, "and the prospect for the cheap

type of American car, which is no doubt alluded to, is far from satisfactory. With careful and judicious handling, however, the situation should improve."

"It would be regrettable should the sales of the several American makes now on the market be curtailed in any way," further remarks the same authority. "The makers of these machines have had very uphill work to get their automobiles on the market here, and they have had to advertise very largely before seeing any actual return for their outlay."

Consul Albert Halstead, at Birmingham, is concerned over the same selling plan, which, he says it is reported, is involved in the distribution of 600 American cars which are to be imported. But he appears to be less fearful of the effect than his Manchester confrere. Indeed, he refers to a newspaper as quoting a leading manufacturer to the effect that "American cars should sell well" and as advising "British manufacturers to standardize a given type of car and push it for all it is worth, as is done in the United States." The Consul is of the opinion that "there certainly should be a market for a reasonably priced, well made, perfectly adjusted, dependable car of comparatively low horsepower, because of the heavier taxation upon higher powered cars." He continues more seriously:

"Now that this movement seems to have begun, it is highly important to impress upon American automobile manufacturers the absolute necessity of sending over only thoroughly tested cars of proven character, cars that in every sense will be creditable to the American industry. The experience with the shipment of bicycles some years since was such as to make the average Englishman somewhat doubtful of the quality and character of American automobiles."

"There is apparently a good opportunity for American automobiles here, but manufacturers should appreciate that with an original prejudice against them the greatest possible pains are necessary to overcome that prejudice or a promising field would to a considerable extent be lost."

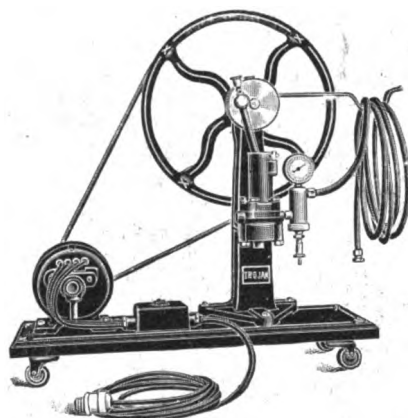
Consul W. Stanley Hollis, at Dundee, however, probably strikes the keynote of the situation as viewed from the standpoint of the American manufacturer who is really anxious to secure a lasting position in the trade of Great Britain, when he refers to the dogged and thoroughly racial inability of the average Briton to understand how any foreign product possibly can begin to compete either in quality or price with home manufacture.

"Prices considerably lower than those for British-made cars of the same power and type now being offered in this market are quoted by American dealers, but it is to be feared that these moderate prices will not of themselves help much in securing a market here," he remarks, "for it is generally believed that the British-

made cars are sold as low as possible consistent with good workmanship and materials, and as it is the firm belief of practically everybody in this country that automobiles can be made much cheaper in this country than anywhere else. When an automobile is offered at a price considerable with a comparison of battery and magneto of the same power and type, the customer will very likely be slightly skeptical as to its quality and durability, and it is very unlikely that he can be convinced otherwise, especially if business is sought only through the medium of correspondence and the sending of catalogs and price lists."

#### Electric Pump for Tire Inflation.

To the growing family of automatic tire pumps, another, the Trojan, has been



added. It is, of course, designed to inflate tires "in no time at all" without the necessity of carrying the pump about, and is operated by a small electric motor, mounted upon the base with the pump; the power for the motor may be taken from any ordinary electric light socket. The equipment includes 15 feet of electric cord and 17 feet of air hose. The Trojan, which is made by the Dal Manufacturing Co., of Chicago, weighs about 90 pounds, and the makers claim that it will inflate four 36 x 5 inch tires to 90-100 pounds' pressure in from three to four minutes each, and that, with the use of an automatic safety valve, the pressure will not vary three pounds in any tire.

#### Home-Made Number Plates Cause Trouble.

Although it is hardly likely that the Fairfield Auto Co., of Bridgeport, Conn., had heard of the scheme of the motorist in Altona, Germany, who manufactured an imitation of the official license plate and who was acquitted on a technicality, its habit of painting its own number plates and putting them on its cars shows how "great minds run in the same channels." This rather reckless proceeding on the part of the automobile company last week resulted in its being haled before the Secretary of the state of Connecticut. The secretary wanted an explanation as to how such a large number of cars appeared on the roads of the state, bearing the number

132D in "home-made" figures upon sheets of tin. After considerable squabbling between the lawyers of the company and the policeman reporting the violation of the state automobile law, the secretary reserved decision. The company claimed that it had exhausted its set of six markers supplied by the state, and that it needed additional ones in a greater "hurry" than the state could or did furnish. So it simply went ahead and "did it"—that is to say, it painted its own markers.

#### Opportunity Lost for Chinese Trade.

"It is a matter of regret that at the first industrial exposition of China, now in progress here, American automobiles are represented by catalog only," writes A. W. Gilbert, American vice-consul at Nanking, China. "The two cars on exhibition (British and French) have been sold to local Chinese officials and are the first sales of motor cars to Chinese in this city. As there are very good roads here and pleasant drives it is only a matter of time before other sales will follow. These sales afford an excellent illustration of the results of competition between catalogs and an aggressive agency on the field. Furthermore, such an agency must be an American one. The most powerful Chinese official outside of Peking lives in this city, and consequently it is also the home of numerous minor officials and wealthy gentry, many of whom now own foreign carriages."

#### To Prevent Substitution of Oils.

If motorists made it a practice of destroying empty oil cans by stamping them before leaving them at a garage, their fraudulent refilling would be rendered impossible. Many manufacturers sell their oil in sealed cans, but the garage owner who is at all unscrupulous generally can dispose of dubious fluid by bringing the oil in a can already opened and bearing an old label. As the cans in the majority of cases are not returnable, there is no loss if they are destroyed when emptied. To discover whether or not the can is sealed and the original oil intact, a good scheme is to order the oil to take away as a reserve on the car.

#### The Cleaning of a Clogged Radiator.

When clogged with sediment a honeycomb radiator may be cleaned by taking a 10 per cent. solution of potash, heating it and pouring it while boiling into the detached radiator, after the pipes leading to and from the motor have been closed. The radiator should be turned upside down every hour for 10 or 12 hours, and the solution then be poured out from the same hole by which it was poured in. At the opposite end a hose with water under pressure should be attached, and a stream run through the radiator for several minutes.



**DEFINES RIGHTS OF PATENTEES**

**In Enjoining Others from Recharging  
Prest-O-Lite Tanks, Court Touches  
Many Points—Notable Decision.**

In a decision sustaining the patent covering the Prest-O-Lite system of lighting, and granting an injunction restraining the Autolux Co., Percyval C. Avery, et al, from recharging Prest-O-Lite tanks, Judge Quarles, sitting in the United States Circuit Court for the Eastern District of Wisconsin, has sketched in unusually graphic language the rights of a patentee. Although he points out that the tank itself is not patentable, the gas which it contains constitutes such an exclusive right, and he holds that not even the patentee's inability to fill orders, which inability may cause public inconvenience, justifies anyone else in recharging the tanks, and thereby infringing the monopoly granted by the patent. The decision, which is an important one and one that cannot fail to have a bearing on patent litigation generally, first sums up the evidence and then passes judgment, as follows:

The Prest-O-Lite Company, has established a uniform practice of giving in exchange for each empty gas tank of their make, a recharged standard Prest-O-Lite gas tank, and has established five agencies throughout the country. For the purpose of insisting upon this practice of exchange or recharging, and to protect its customers from badly filled and inefficient tanks, the Prest-O-Lite Company has since its organization sold these devices solely with the intent that they be returned when empty to the Prest-O-Lite Company for exchange, and that they should not be sold or used when filled with acetylene gas by any one other than the patentee or its licensee, the complainants herein. This purpose has always been understood and recognized in the trade, and generally acquiesced in. In order to bring fully to the attention of the users the terms and conditions under which these tanks were sold and exchanged, the Prest-O-Lite Company since the first day of June, 1907, has placed upon every one of these devices sold and exchanged, a metallic plate on which is engraved the following words:

"The Prest-O-Lite Gas Tank Co.  
(Serial No.) The Prest-O-Lite Co.,  
New York, Boston, Indianapolis, San  
Francisco, Toronto, Patented Dec.  
25, 1900, May 12, 1903.

Notice this device is sold and purchased for sale and use only when charged with gas by the undersigned. No license is granted to use or sell this device when charged by any one else and no license is granted to any one else to recharge this device. Any sale or use of this device when sold or used in violation of this condition and limited license will be considered as an infringement of Letters Patent of the United States under which this device is made and sold, and all parties so selling and using this device contrary to the terms of this limited license will be treated as infringers of said Letters

Patent and render themselves liable to suit for damages and injunction without further notice. This license is good so long as this plate remains upon the device. Any erasure or removal of this plate will be considered a violation of this license. A purchase is an acceptance of these conditions.

Agents and dealers are not authorized to vary this license.

The Commercial Acetylene Company.  
The Prest-O-Lite Co."

In addition to this notice of the nature of the rights in these tanks passed by their sale to the purchaser, the Prest-O-Lite Company has attached to each and every of these tanks a paper label containing in large letters substantially the same matter as that placed on the metallic plate.

Those conditions were well known to the defendants Avery and Burnham and their associates and the defendant corporation. The defendant Avery was one of the original officers and stockholders in the Prest-O-Lite Company, but severed his relations therewith for the purpose of establishing in the city of Milwaukee under the name and style of the "Avery Portable Lighting Company" an infringing plant for the manufacture and sale of certain infringing device, and by recharging said licensed device of the Prest-O-Lite Company, and until February 5th, 1909, said parties so connected with the Avery Portable Lighting Company were actively engaged in committing these infringing acts, and so continued until enjoined by an order of this court on final hearing from continuing to manufacture and sell the device known as the Autogas tank, or from committing any other infringing act. About this time Avery and his associates organized a new corporation under the name of the Auto Lux Manufacturing Company at Milwaukee, for the purpose, as claimed by complainants, of continuing the invasion of the rights of the complainant under the patents aforesaid, and commenced the manufacture of an apparatus known as a High Pressure Generator, which has been extensively used in recharging the Prest-O-Lite gas packages and other gas tanks used on automobiles.

Eleven such High Pressure Generators have been sold by defendants and installed in populous cities, where they have been used to fill the gas tanks of the Prest-O-Lite Company and others.

The showing made by the complainants on this application on its face presents two distinct legal aspects. The first rests on the patent alone for all necessary recharging of the Prest-O-Lite gas tank during the life of the patent; that any unlicensed person who charges such a tank with a super-saturated solution of acetylene gas for use or sale, is an infringer, and that whoever advises, aids or abets such tort is a contributory infringer; that no restriction by the patentee is necessary to re-enforce the sanction of the patent.

Second. The conditions imposed by the patentee forbidding any one aside from the patentee from recharging the gas tanks, are set up and insisted upon. The principle of law relied upon is that the patentee may withhold his device from the public entirely if he so elects, and therefore may impose such restrictions upon use or sale of the patented package as he may choose; that the purchaser or user who knows of such restriction is bound to comply therewith. To knowingly violate them is a tort, and whoever advises, abets or aids in such violation is a joint tort-feasor.

The contention of complainant is that defendants are guilty under either phase of

the law. It may be well to consider these two propositions separately.

To clarify the first proposition we must have in mind what the device is that is protected by the Claude & Hess patent. All along through the showing of defendants the idea crops out that one who has bought a patented gas tank owns the same absolutely, and may have the same recharged when and where he will. That is to say, that the legal effect of such purchase is to release the device from a monopoly. Now if the empty steel shell with its two valves be the physical embodiment of the patent, this contention would be entitled to consideration. A reference to the language of the Claude & Hess patents and to their history in the Patent Office, and the construction placed upon them by this court in 161 Fed. 907, should suffice to silence this contention. The "package," which is the patented product, consists not only of the steel tank, but of the internal equipment of a super-saturated solution of acetylene gas which is recognized as an essential part of the package. A long bitter fight was waged in the Patent Office on this very point, and the final conclusion was that the gaseous solution bore the same relation to the outer shell as the column of mercury bears to the glass stem and bulb of a thermometer. Indeed, it was conceded by the officials of the Patent Office that there was nothing patentable about the steel cylinder with two valves, each element, as well as the combination, was old. Therefore it is obvious that the exhausted steel cylinder is not the physical embodiment of the patent and has not been released from a monopoly, but in the natural order of things requires the renewal of the vital elements of the patent. This operation calls for the teachings of the patent, the same care, skill and inventive thought that are called into requisition when the tank received its initial charge. It follows, therefore, that whoever undertakes to recharge this tank for use or sale, is practicing the invention to all intents and purposes and is invading the monopoly. That this illicit business has grown to large proportions is convincingly shown by the affidavits submitted on both sides, and was established by the record in the suit of the present complainants against the Avery Portable Lighting Company. There can be little doubt from the facts here submitted that the High Pressure Generator of the defendants has been extensively employed in filling Prest-O-Lite tanks, with the knowledge and consent of the defendants; that such generators, eleven in number, have been established in the large cities of the country for the purpose of facilitating this illicit business. This is attested by the clamorous chorus of auto users who furnish affidavits here for the defendants, singing the praises of the defendants' generator as a panacea for all their troubles. Seventeen of these dependents admit being owners or users of one or more of the Prest-O-Lite tanks. The clear inference from the defendants' affidavits is that in the absence of the High Pressure Generator, these Prest-O-Lite tanks could not and would not have been recharged except through the agencies provided by the complainants. We shall see when we come to discuss the law that the defendants are contributory infringers under the first hypothesis.

The second proposition involves the legal efficacy of the conditions imposed by the patentee prohibiting use or sale of any such tank recharged by any other than the patentee. There would seem to be abundant reason why complainants should insist

upon this condition that is stamped on every tank conspicuously and brought to the attention of every user. It is dealing with a combination of chemical elements of high explosive nature calling for great care, skill and experience to ensure safety and efficiency in operation. The reputation of complainants is at stake on every one of its tanks that goes out to the public bearing its name. Such reputation is bound to suffer when one of its tanks explodes or falls below the standard of efficiency, but whether reasonable or unreasonable, the authorities seem to recognize the right of the patentee to insist upon a restriction of this kind, no one being bound to purchase or use the patented article if unwilling to abide by the conditions. No case exactly in point can be found, indeed no such case has heretofore arisen presenting the peculiar facts which make this a case of first instance. Numerous cases are cited where the patentee by a condition has insisted upon bringing within the monopoly some article or substance not covered by the patent. Such was

Dick vs. Milwaukee Office Specialty Co., 168 Fed. 930.

See also the following cases cited by complainant's counsel:

Tubular Rivet Co. vs. O'Brien, 93 Fed. 200. Aeolian Co. vs. Juelg Co., 155 Fed. 119. Rupp & Wittgenfeld Co. vs. Elliott, 131 Fed. 730.

The distinguishing feature of the instant case is that the patentee by condition merely insists upon the exclusive right to practice the invention, to control the elements that constitute the soul of the invention. The so-called condition is not broader than the prohibition of the patent. Viewed from any standpoint the requirement of the so-called condition is entitled to respect and obedience at the hands of every person having knowledge of such restrictions. In some way the patentee must have protection; otherwise it would result that the monopoly would practically expire with the exhaustion of the first charge of acetylene. At the end of thirty-four hours of steady burning when the first instalment of power has given out, any interloper may gain possession of the tank and practice the invention with impunity. This would work a mockery of the entire patent, and set at naught the patent laws which assume to grant a complete monopoly for seventeen years.

This case is *sui generis*, not to be confused with the case of a patented device which passes to the user completely equipped, calculated to discharge for an unlimited period of time a given function, until it breaks down or wears out. In the case of the gas tank it is within the contemplation of the parties, and inheres in the very nature of things, that within a short time, a matter of weeks or months, the package will become exhausted, and a recurrence to the teachings of the patent will be necessary to invigorate the tank for another period of usefulness. One of the gods of mythology was so constituted that at fixed periods he was obliged to recline on the earth from which he drew his supernatural power. The very theory of the patent is that each tank must oscillate between the vehicle upon which it serves to the charging plant upon which it depends. Thus the doctrine of repair, so urgently pressed upon us, is not applicable. There is no breakdown here. The return of the exhausted tank is not accidental, but normal, and whoever knowingly interferes with this process invades the monopoly. The attempt to bring this case within the doctrine of repair because complainants take

tribute in advance, is not entitled to serious consideration. The Government has left the matter of tribute entirely to the patentee and the public with whom he must deal. In the case of any ordinary sale of a machine, the patentee collects his entire tribute when the sale is made. He expects nothing more, as the transaction is complete.

It is said that the condition is matter of contract and binds only the purchaser who assents to the same. On the other hand, the theory is advanced that the condition stamped on the tank is like a covenant that runs with the land. Neither proposition is exact. The covenant runs with the land whether the later grantee has notice thereof or not; the record furnishing constructive notice. Here it is purely a question of notice. Any person having actual notice that such restrictions have been imposed is bound to observe them.

In *Bement vs. National Harrow Co.*, 186 U. S. 71, the court says: "The very object of these laws is monopoly, and the rule is, with a few exceptions, that any conditions which are not in their very nature illegal with regard to this kind of property, imposed by the patentee and agreed to by the licensee for the right to manufacture and use or sell the article, will be upheld by the courts. The fact that conditions in the contracts keep up the monopoly or fix prices, does not render them illegal."

That defendants have encouraged a wholesale violation of such reasonable condition and have furnished machinery to facilitate such violation, is established to my entire satisfaction.

But defendants insist that defendants are three removes from the user who oversteps his legal rights, and therefore they are not technically contributory infringers. An infringement is a tort, and it is a fixed principle in the law of torts that all who engage in its consummation are joint tortfeasors! There is no magic in the term contributory infringers which will avail the defendants. The following cases cited by complainant's counsel fairly indicate the lines of contributory infringement. Judge Seman in *Dick vs. Milwaukee Office Specialty Supply Co.*, 168 Fed. 930, approves and adopts the definition and reasoning of Judge Ray in a case with the same title found in 148 Fed. 427, where the Court says: "That such license restrictions are lawful, good, valid and binding in the case of patented machines and articles has been established by a long line of decisions. Also that one who knowingly and directly aids, abets and procures a violation of such license restriction is a contributory infringer of the patent." This legal doctrine is fortified by several later cases cited by complainant's attorneys.

In *Crown Cork and Seal Co. vs. Standard Brewery*, 174 Fed. 252, 259, the Court says: "If the defendants knowingly contribute to infringement of a patent by aiding a use beyond the limits of the license made by the patentee," they are contributory infringers.

See also *Goodyear Shoe Manufacturing Co. vs. Jackson*, 112 Fed. 146, cited by defendants.

The voluminous showing presented by the defendants consists mostly of a large number of affidavits from dealers and users of gas tanks used upon automobiles describing the enormous demand for these articles growing out of the phenomenal expansion of the automobile business, the utter inability of the complainants to supply sufficient tanks to meet this growing demand, and the great inconvenience of users who needed to have their tanks recharged promptly and were obliged to send their

exhausted tanks a long distance to reach any charging plant maintained by complainants; that the installation of the Auto-Lux generator of defendants was a great blessing, as it enabled such recharging to be expeditiously done at home. It is difficult to see how this showing furnishes any legal footing for the defendant. It would rather seem to emphasize and give color to the complainants' contention in two ways. First, because it depicts in strong light the wonderful commercial opportunity and temptation for one who is willing to break into the field and appropriate this business of recharging complainants' gas tank. Consumers were willing and eager to pay the price. Defendants were equal to the situation and proceeded under some early patents to construct a generator that would answer the purpose, and located them in populous centers where complainants had no recharging plant. This laid bare the secret spring that brought the High Pressure Generator into existence and accounted for their rapid distribution. It was a commercial enterprise, promising large profits, if the business of recharging these tanks of complainants could be diverted and maintained. It satisfactorily appears that defendants well knew that an evasion of the monopoly of complainants was involved, and that they were anxious in their contracts that purchasers assume responsibility for legal consequences. These matters were all talked over with the purchasers of the generators, which were in nearly every instance connected in some way with the auto business, and were entirely familiar with the methods pursued by the complainants in licensing their tanks, and the conditions that were imposed upon every purchaser, and all appear willing, under the advice of defendants, to take the chances of litigation.

Second. Such showing of affidavits gathered by defendants betrays the fact that such generators of defendants are being generally and regularly used to fill the Prest-O-Lite tanks. The fact that complainants were unable to furnish sufficient charged tanks to meet the demands of the public, furnished no legal excuse for the wholesale infringement. A similar excuse was presented in *Crown Cork & Seal Company vs. Standard Brewery*, 174 Fed. 253, 257, and was summarily brushed aside by the Court.

I am constrained to hold that the high pressure generator of defendants was built and sold to enable certain reliable men to to secure this illicit business of recharging the Prest-O-Lite tanks, the profit of such enterprise to be shared by the defendants. Trade conditions were peculiar, but trade conditions did not change the law nor the rights conferred by the Government upon the patentee.

The complainants are entitled to injunctive relief so far as may be necessary to protect and enforce the restrictions imposed upon the sale and use of tanks filled by any other than the patentee. The use or sale of the High-Pressure Generator for the purpose of recharging Prest-O-Lite tanks with acetylene gas must be prohibited.

I am inclined to include the Auto Gas tank. They have been adjudicated as infringing devices, and so remain unless their status was changed by negotiation and adjustment of the parties which wound up the litigation between the complainants and the Avery Portable Lighting Company.

The complainants' attorneys will prepare an injunctive order and submit the same to the defendants. The Court will hear the parties as to the framework of the order.

## Motoring and Its Relation to Health

The influence of the automobile upon the mind, the morals, and the physical being of those who use it presents questions of interest well worthy of study. Already more or less has been written concerning these topics. Its effects, however, upon the upper passages do not seem to have attracted serious attention, and yet offer opportunity for considerable investigation and comment, says Dr. D. Bryson Delavan in a paper read before the American Laryngological Association.

The automobile may affect both him who uses it and him who does not. The exposure to one who rides in an open vehicle may bring about effects which would not endanger the one riding in a limousine. The chauffeur may also be exposed to dangers peculiar to his position. As to the man who walks, it is his part to inhale the fumes which poison the atmosphere of our best avenues and to either be driven from his home by the noise of the automobiles or choked by the dust which is raised by them and blown in his direction.

If the experience of other occupations which are known to be injurious to the air passages is any criterion, it is time that we had undertaken to consider the influence of the automobile.

The factors which may work injury may be divided into two groups, namely, first, conditions relating to the air itself, and, second, impurities carried by or suspended in the air. The first includes temperature, air currents and air pressure; the second, dust and smoke. Sudden and violent changes of temperature are often encountered by the motorist. Exposure to strong draughts is also a common experience, the draughts being due to natural air currents or to the rapid motion of the car. Where the car is speeding in the face of a breeze the resulting increase of air pressure must be considerable.

Sudden change of temperature or rapid radiation of body heat due to exposure to air currents may cause chill, and, indirectly, the latter's well-known results upon the breathing apparatus. Increased atmospheric pressure, especially when combined with cold, must of necessity exert important influences upon the respiratory region, from the nasal cavities and their communicating passages to the ultimate vesicles of the lungs. A rate of 30 miles an hour constitutes a stiff breeze, while 60 miles represents a gale. These facts we know, and yet easily forget in the exhilaration of the ride.

Studies made with regard to the actual resistance of the air in speeding give in-

teresting results. It is stated that at speeds below 20 miles an hour the effect of wind resistance is too slight to be measurable. Considering surfaces at right angles to the normal plane of travel of the automobile, resistance begins to show at about 15 miles an hour. It increases slowly, reaching about  $2\frac{1}{2}$  pounds a square foot at 30 miles an hour. Higher speed results in rapidly increasing rate of resistance until at 60 miles an hour the pressure is about 13 pounds. At 90 miles it has increased to about 29 pounds.

If these observations are correct, air pressure in connection with the use of the automobile is not a negligible factor, especially when related to its influence upon the air passages. Of course, it must be remembered that the rate of pressure may be greatly increased by adding the force of a head-wind to the speed of the machine. Thus, a speed of 30 miles against a 20-mile breeze would create a 50-mile pressure. While there may be some conditions of the lungs in which exposure to a moderate increase of air pressure for a limited amount of time would be beneficial, there must be many cases in which great increase of pressure, or pressure long continued, would result in injury, even to a healthy lung. In certain pathological conditions, such, for example, as emphysema, the risk is obvious.

The second injurious factor is the impurities which may be inhaled with the inspired air. These consist of dust, of smoke, and of other matters, among which may be mentioned plant products and small insects. The deleterious effects of dust upon the air passages are obvious.

With regard to the equipment of the motorist, every conceivable appliance and convenience is provided for him. This is especially true of protections for the eye, which are supplied by the shops in great variety. In considering this, however, it at once appeals to one as strange that protection of the breathing apparatus against dust and severe winds seems to be neglected. I have searched many shops, but have never yet found a satisfactory respirator, nor do I know anything in recent scientific literature bearing upon the subject. Almost the single exception to this statement is the face guard used in racing, for protection against the wind. This is of simple pattern and construction, and for its purpose is said to be effective. It can hardly be entirely successful, however, in excluding dust. For the latter purpose none of the old-fashioned respirators, such as have been worn in London for many

years for protection against fog, nor those of the Morrell Mackenzie type, for preventing the inhalation of dust by emery grinders, stone workers, and the like, are satisfactory. The majority of those who attempt any protection at all are ladies, who use chiffon veils in which they envelop the entire head. This method, of course, offers a certain amount of relief to the air passages, but it can not be considered ideal.

The lack of attention which has been given to the subject of respirators would imply that dust is an unimportant factor. In regions where the roads are well cared for and properly oiled this is to some extent true. Any one who has seen automobile parties coming in after long runs in dry weather, through an open country, will remember the extent to which everything pertaining to the motor and its occupants has been covered with dust. This is especially true of many districts in Europe, where oiling of the roads is unknown, and where limestone or other comparatively soft material used in making the roads has furnished a fine powdery grit, which rises in dense clouds and penetrates everywhere.

The introduction of the wind shield has resulted in modifying the effect of wind currents with considerable success. Roe states that since it has been more generally used diseases of the nasal sinuses among automobilists have been distinctly less common.

Theoretically considered, the use of the automobile should be productive of a decided increase in the average of respiratory ills. Whether or not it has actually so resulted is a question. Taking up the causes of injury, we will first refer to chill. This may be acquired through unsuitable or insufficient clothing, or through clothing improperly applied. Not only should the body be protected, but the limbs should be carefully covered, especially in open motors. A coat, otherwise warm, may be cut too low in the collar. The idea that undue exposure of the neck and throat tends to strengthen the parts is a popular fallacy. No such custom prevails with the Eskimos and others of exposed life dwelling in cold latitudes. No part of the body would seem to demand more careful protection than that adjacent to the top of the sternum, where center the most important blood vessels of the body, many of them within short distances of the outer world. A coat which does not properly protect the throat is like a roofless house. Any one who has skated, or has sailed an ice-boat in very cold weather, or who has had experience in mountain climbing at high altitudes, will

readily understand this. In motoring, neither extreme cold nor great altitudes are necessary to bring about conditions which rapidly lower the body temperature. As with the neck so with the feet. Low shoes, unprotected ankles, and want of rugs may quickly work disaster. Some of the head coverings used are admirable. Others are exceedingly bad, comfort and safety being sacrificed to appearance, with no attempt to protect and shield the face and neck. The subject of proper underclothing must also be considered. The wearing of an abdominal band is considered by many experts a great protection against chill. It is easy to become chilled in an automobile when one enters it after leaving a warm room, even when well protected with clothing. Still worse to ride in an open machine in the country, fresh from an overheated train and with thin clothes.

Apparently the worst case is that of the chauffeur who, in the effort to replace a tire or repair some injury, works himself into profuse perspiration and then upon the driver's seat makes up lost time against a cold breeze. Such exposure should be prolific of throat and lung trouble. As a matter of fact, it does not seem to be. This may be accounted for by the youthful vigor and personal power of resistance of those who engage in the work of motor driving, as well as by the health-giving effects of a life of abstinence and of activity in the open air.

Having considered the above-mentioned factors, the next step would be to study their effects upon the upper air passages in healthy individuals.

To that end we have endeavored to make a collective investigation of the subject, and have taken the chauffeur as the basis of study, selecting him because, as a professional, he devotes a maximum amount of time to his work; because his position is more exposed than that of others; and because he may be supposed to represent a fair type of the average healthy individual. In order to gain the most reliable information possible we have interviewed the medical departments of four leading life insurance companies. All agree that the subject should be, and is being, investigated, but state that it has only lately come up, that nothing less than a large collection of statistics will be of value, and that the length of time which has elapsed since the matter was taken in hand is too short to admit of reliable deductions and final scientific results. As far as their observations have gone, up to the present time, none of them has been able to notice any special effect of the use of the automobile upon the upper air passages. One of the companies states that while the mortality rate is greater in these cases than with ordinary drivers of vehicles, this is owing to accident and not to disease, and has nothing to do with the real object of our investigation. It makes no extra rate for risk of illness to

chauffeurs. It aims to accept only chauffeurs of good standing and of temperate lives, and it believes that any special risks of illness to which they may be subjected are counterbalanced by the non-use of alcoholics and by the life in the open air. Another company regards the chauffeur as not inferior as a risk, and accepts him on equal terms with others of his general grade. A third agrees substantially with the above. In the case of the fourth company an excess rate of one-half of one per cent. was formerly charged chauffeurs. Lately, this excess has been removed and they are taken at the usual rates.

In short, the medical departments of these companies, the largest and most important in the country, have not found that chauffeurs are apparently more liable to the serious respiratory diseases which threaten life than are coachmen. Both, of course, are apt to suffer from pneumonia due to exposure, one of the few conditions likely to come to the notice of life insurance authorities.

In acute catarrhal conditions in general of the air passages motoring would seem to be contraindicated. In many subacute and chronic catarrhal conditions, however, it appears to be distinctly advantageous. In my own experience many such cases have been benefited, and more than one patient of long standing has been cured.

In bronchitis, asthma, and emphysema the rules which would obtain with regard to the avoidance of sudden changes of temperature and exposure to strong winds would be applicable to the use of the automobile.

The same may be said with regard to pulmonary tuberculosis. Several cases have been reported to me in which bronchial asthma, vasomotor coryza, and hay fever have been markedly relieved by it.

Good authorities, of course, interdict motoring in tuberculosis subjects whose temperature is above normal. In certain cases, particularly of the nervous, restless type, the mild stimulation of the circulation, deep-breathing, and lively mental diversion have been distinctly beneficial.

The advantages of the open car, also are not to be ignored. The entire freedom of the circulation of the air, even in cold weather, is stimulating and tonic to those vigorous enough to profit by it. Indeed, there are some who claim that they never take cold unless they ride in a closed car. Here, of course, the personal equation must settle the question.

In this connection attention should be called to the use of the wind shield. It is said that much greater immunity from respiratory troubles has been observed among professional drivers than was formerly the case. Before the introduction of the wind shield affections of the ear, the nasal sinuses, and the air passages in general seem to have been much more common than they are now.

The typical expression of countenance of the racing motorist is highly suggestive of mouth-breathing, a habit likely to add much to the risks under discussion.

In estimating its effect upon the air passages, therefore, the fact that the automobile may be either open, protected, or enclosed must be considered. No vehicle is more luxurious or, indeed, safer for those who are feeble and susceptible to the effect of cold, than a high-grade, well-appointed, modern car. With the windows properly arranged draughts can be prevented, and even the temperature can, to some degree, be controlled. Under such conditions an invalid might travel proper distances without injury and with highly beneficial results. To the same person a long ride in an open or a partly protected car might be attended with discomfort and followed by disaster. In advising a patient, therefore, it is necessary to specify the variety of car he should use and then instruct him as to the precautions necessary in his particular case.

Here, again, the personal equation becomes important. The same currents of air which would invigorate and strengthen a person in robust health might be harmful in conditions of disease of the air passages, as they are recognized to be in disorders of other parts.

In a paper recently presented in Philadelphia by Professor James Tyson on the effect of the use of the automobile upon the heart, Dr. Tyson maintains that many cases of cardiac diseases are markedly benefited, the fresh air, moderate exercise, gentle stimulation of the circulation, and mental diversion having an excellent influence.

So, in properly selected cases of respiratory trouble the patients thrive under it, owing to improved oxygenation and nutrition.

To sum up the matter, it would appear that under certain conditions and in certain cases the motorist may expose himself to positive risks. These risks may sometimes be modified or even removed by the use of proper precaution in the selection of a machine and by the exercise of wisdom in using it. Properly used in suitable cases, the automobile may be a valuable therapeutic agent.

These things being true, it is time that knowledge upon the subject had been obtained sufficient to enable us to warn the public of the possibilities of danger and to instruct it as to the best means of protection.

#### Stores Cars and Loans Money on Them.

Among Detroit's many automobile establishments is one which not merely buys, sells and stores cars, but which offers to advance money while they are in storage. No inkling is given of the extent to which the offer has been availed of nor whether the company has complied with the "pawn-brokers' regulations" of the state.





## GREAT SMITH STRIKES THE SHOALS

**Kansas Company in Hands of Receiver,  
After Court First Refuses to Act—  
Reorganization is Planned.**

In the belief that it will safeguard the interests of all creditors and permit of reorganization on a fair basis, the Smith Automobile Co., of Topeka, Kan., has been placed in the hands of a receiver, F. B. Clark, the secretary and manager of the company, being designated to fill that office.

As only some three months since the company, which manufactured the Great Smith car, gave notice to the Topeka public that unless local support was forthcoming it would be compelled to discontinue or to seek a more favorable location, its embarrassment is in no wise surprising. At that time some \$40,000 was pledged by the citizens of Topeka, but it evidently did not serve the purpose. It is stated that the assets more than equal the liabilities and that the receivership proceedings were instituted because of fear that minor creditors might precipitate matters.

When a petition filed by friendly merchandise creditors asking for the appointment of a receiver first was presented to Judge John C. Pollock, of the United States District Court, he declined to rule that the company was insolvent or to take action without agreement on the part of the Smith company. Several days later, however, this consent was waived and F. B. Clark appointed receiver, as stated.

### Electric Car Deal Pending in Toledo.

Negotiations are pending between the Milburn Wagon Works and the Ohio Electric Car Co., both of Toledo, Ohio, for a consolidation of their respective interests. The Milburn company, which is one of the oldest and largest manufacturers of farm wagons and buggies, has been making the bodies for the Ohio Electric vehicle, so that the concerns are well known one to

the other. The Ohio Electric Car Co. was formed in March of last year, but has not cut a very large figure in the automobile industry. A. M. Chesebrough is its president and J. B. Bell its secretary-treasurer.

### Anhut's Conception of "High Financing."

The Security Trust Co. of Detroit has been appointed trustee of the Barnes Motor Car Co., which recently went into bankruptcy. At the meeting at which this action was taken it came out that the Chatham (Ont.) plant of the company, which originally operated as the Anhut Motor Car Co., was worth but \$10,000, at a liberal valuation, although it was represented by stock to the value of \$50,000. In addition, there is a flaw in the title to the property. When John N. Anhut was putting his ideas of "high financing" into practice, the stock of the Anhut company was increased \$300,000 when the Canadian plant—which was never operated—was acquired.

### Wants Receiver in Order to Reorganize.

The board of directors of the Owosso Motor Co., of Owosso, Mich., has petitioned the court for the appointment of a receiver and the dissolution of the company, J. P. Waters, superintendent of the concern, being nominated for the receivership. This action, it is stated, is not for discontinuing the business but to permit of reorganization and "getting down to a solid basis." The manufacture of the Owosso wagon will continue without interruption.

### St. Louis Spring Company Goes Broke.

The Supplementary Spiral Spring Co., of St. Louis, Mo., has been adjudicated bankrupt, Walter D. Coles having been appointed referee in bankruptcy. He has called a meeting to occur on the 16th inst., when a trustee will be selected.

### Croxton-Keeton Seeks Its Discharge.

The Croxton-Keeton Motor Co., of Mason, Ohio, has filed its petition for discharge from bankruptcy. It will be heard in the United States District Court in Cleveland on January 28th.

## LIGHT ON "LEAGUE'S" CHARTER

**Action Seeking Its Forfeiture Brings Remarkable Disclosures—"Purchasing Agent" a New York Workman.**

Testimony in the proceedings instituted by John N. Schmidt, of York, Pa., to have the charter of the International Automobile League, of Buffalo, N. Y., forfeited, still is being taken, several hearings having been held by the attorney-general of New York at Albany.

The grounds on which Schmidt's application is based is that the Buffalo concern is attempting to do the business of a membership corporation under its charter as a commercial corporation. This charter, dated May 20, 1908, is a remarkable document and authorizes the so-called league, which is composed of A. C. Bidwell, William Priess and Charles H. Bowe, not merely to manufacture, buy and sell automobiles and tires, but to conduct any sort of mercantile business, from a delicatessen shop up; to print newspapers; to build and operate garages and any other buildings; to engage in a general contracting business and generally to do whatever its wily promoters willed.

The evidence presented showed how dismally the league's chief object—to put the automobile dealer out of business—had failed, more than 1,000 of the motorists who had given up \$10 each in the belief that it would enable them to buy goods at trade prices, having subscribed to statements that the league had failed to deliver goods that had been ordered. Not the least interesting information brought out showed a connection between the Buffalo concern and the sweet smelling Manhattan Storage Co., of New York, the owners of which have had an interesting career, and which after doing a peculiar "bargain" business in bicycle and automobile goods for years, is now engaged in the sale of second-hand cars. The ostensible "purchasing agent"

of the league proves to be a workman for this Manhattan Storage Co., from whose address it was discovered some time since accessories were being shipped to Buffalo.

When Schmidt filed his action seeking to have the league's charter canceled, the attorney general turned the matter over to Deputy Attorney General George A. Fisher, who has presided at the several hearings at the capitol. It is possible that a decision in the matter will be reached before the incoming administration assumes charge of the state's legal affairs on January 1st, but if this is not done the papers will be turned over to whoever succeeds Deputy Fisher. Hon. Danforth E. Ainsworth is attorney for the petitioner, and J. B. Corcoran appears for the respondent.

According to the testimony which has been taken the league advertises to furnish members with all automobile accessories, tires, tops, auto-meters, lubricants, lamps and anything else required; to have a string of garages across the country where every owner of an automobile, and a member of the league, may obtain care for his machine at cost. It also proposes to furnish lawyers to defend its members in legal actions and to place upon the market automobiles constructed by itself at 35 per cent. below the price to the trade. It also advertises that it will procure and furnish auto tires to its members at the same prices that manufacturers supply them to the dealers. It charges those who desire to join \$10 for each machine owned by them, and its application form states that it will furnish "labor, gasoline, tops, oils, tires, glass fronts, coils, timers, carburetors, repairing and vulcanizing of tires, generators, gas tanks, self-measuring pumps, shock absorbers, mufflers, drip pans, turntables, trunk racks, clocks, gas engines and all other accessories."

In the application blank this is also found, and it is regarded as significant, at least, "that it may be able to obtain dealers' prices."

Attorney Ainsworth has already filed with the deputy attorney general 1,000 letters from members of the league who have protested that they could not get their orders filled, while Attorney Corcoran has filed twenty-two affidavits from people who say they bought supplies at reduced prices.

At the hearing before the deputy attorney general, Mr. Ainsworth read one of the application blanks and said: "Whoever signs this application supposes that he thereby becomes a member of the International Automobile League; that is, he either becomes a member of this corporation or else it is a fraud. A 'member of a corporation' is defined in the statute. The term 'member' of a corporation shall include every person having a right to vote at a meeting of the corporation for the election of directors other than a person having a right to vote only upon a proxy.

Now a person who has a right to vote in a corporation is defined in Section 23 of the General Corporation Law, and includes only stockholders or those having proxies. So that, under the guise of a business corporation, created under the Business Corporation Law, this corporation is attempting to do the business of a membership corporation. If it wants to do the business it is seeking to do, it should do it under the Membership Corporation Law. I think that this proposition is elementary. The person who makes this application, either becomes a member of the corporation or he does not, and if he attempts to become a member of this corporation in this way, it is an illegal exercise of rights by the corporation. Now, I hardly think it will do to say that this is not a question of sufficient magnitude to arrest the attention of the attorney general. I shall show its extent by the evidence I shall introduce.

"A careful reading of the application blank discloses that they do not agree to furnish anything to anybody. There is no agreement in its application that they will furnish to members these things and there is no agreement that they will furnish them at any price—will furnish radiators and all other accessories that it may be able to obtain at dealers' prices."

"I have over 1,000 letters from members who are trying to get out of this corporation, who have returned their literature and say they no longer desired to be members of the corporation, and to them is attached the correspondence of this company to the effect that they must pay their back dues before they can leave the corporation."

Mr. Corcoran—"That is not anything unjust, is it?"

Mr. Ainsworth—"Yes, and the courts in the First Department have passed upon that kind of a contract as being a fraudulent contract, and under the circumstances of this case I make the charge that it is intended so to be, and I substantiate that charge I think by the correspondence which I have."

Mr. Ainsworth then produced a blank making application to be a director.

Mr. Ainsworth—"Now while the application for membership seems to imply that the holder may receive some advantage in the purchasing of automobile supplies, notwithstanding the fact that it does not contract that they will, they have assumed to create an impression among their members that supplies may be bought at a less price of them than can be bought in the market generally. They publish a circular in which they announce the prices at which Diamond tires, Goodrich tires, Morgan & Wright tires, Fisk tires and other tires may be purchased. I shall introduce in evidence many letters to the effect that people have ordered through them these particular kinds of tires and other supplies, and immediately they are met by

the proposition that some other kind of tire is just as good as that; that they are unable to procure that kind of a tire and that they don't furnish them. I have several hundred letters of that kind, and I have the correspondence which has been entered into between this corporation and Mr. Schmidt, the petitioner here."

Then Mr. Ainsworth read extracts from letters which had been received by Mr. Schmidt at his home in York, Pa. Mr. Schmidt sent an order to the value of \$59.58 and ordered among other things a Goodrich tire 34 x 4. In reply he received under date of August 24, 1909, the following:

"We have received a requisition from the home office to ship you casings and supplies and note that amongst which you require a Goodrich Q. D. Casing 34 x 3½ and also one 34 x 4. For the time being the Goodrich people are out of these particular casings and it may be three or four days before they have them in stock again. We desire to know if it will be perfectly satisfactory to you if we forward the Diamond casings instead. Kindly send your reply to A. V. Webb, purchasing agent, 1611 Broadway, New York City, and we would suggest that in the future, if you will address all your requisitions and supplies to this same address, that you will save considerable time, as when requisitions are sent to Buffalo they remain there a day or two and are then transferred to this department, this being the principal purchasing department of the league."

Mr. Ainsworth—"The A. V. Webb is a workman employed in a garage in New York known as the Manhattan Storage Company. He has no office and no place of business, but is a workman employed in a garage in that city, the scheme being (as we shall show by the correspondence) that a person send an order, as in this case, for a Goodrich tire and he tries to buy a Goodrich tire, and if not, they begin to see if they cannot substitute something else, and eventually it comes that they ask them to pay the costs of a Goodrich tire and take some other tire. It seems a little ridiculous to hold up this workman in a New York garage as the principal purchasing agent of this corporation with an income of \$300,000 from its members."

Then Mr. Ainsworth took up the matter of a circular issued by the league relative to the sale of Ford cars. He said: "Now for what it is worth, I don't know how much it is worth, but I propose to substantiate it by the Ford automobile people, I introduce the following circular signed by the International Automobile League and sent broadcast by them:

"Dear Sir—We have a large stock of these cars, brand new on hand, which we can sell to our members at the following prices, less 7½ per cent. discount: Ford, Model T. Touring Car, \$850; Ford, Model

(Continued on page 676.)

**A. L. A. M. BANQUET DURING SHOW**

**Trade's Big Organization Decides to Hold Such a Function—Honors for Pioneers and Innovations Promised.**

For the first time, the Association of Licensed Automobile Manufacturers will include a banquet in the round of functions that mark the New York show season. It will be held at the Hotel Astor during the first week of the show, on Thursday, January 12th, to be exact. At the banquet it is planned to recognize and do honor to some of the genuine pioneers of the industry, not merely those who had to do with the trade itself but those who by word, or pen, or projection contributed to its establishment. The speechmaking will be limited to three or four prominent men, but there will be introduced a number of innovations tending to enliven the proceedings, the nature of which can only be guessed at, but which, by implication, suggests Gridiron Club stunts.

In a measure, the banquet will take the place of the luncheon annually given by the late American Motor Car Manufacturers Association, but it is being projected on a much more elaborate scale. While it will be the first affair of the sort held by the A. L. A. M. during the show season, it will not be its first banquet, as last April it gave a function of the sort, which marked the first public occasion when most of the "lions" and the "lambs" born of the Selden patent situation lay down together, so to speak. The committee which handled that affair will promote the forthcoming one, viz.: H. B. Joy, chairman; Benjamin Briscoe, A. L. Pope, R. E. Olds and H. A. Lozier.

The dinner of the Society of Automobile Engineers also will occur on January 12th, but at the Automobile Club of America. The banquet of the Motor and Accessory Manufacturers is programmed for the next evening, the 13th, at the Hotel Waldorf-Astoria.

**Ohioans with "Owners' Garage" Scheme.**

The Imperial Motor Car Co., of Cincinnati, O., which has been incorporated with capital stock of \$150,000, purposes doing a garage and supply business and, it is stated, will endeavor to acquire several of the going establishments. The company's incorporation was preceded by the circulation of a prospectus painting the beauties of "auto owners' garages and supply houses.

**Clevelanders Buy an Excelsior Branch.**

The Cleveland Tool & Supply Co., of Cleveland, O., has purchased the Detroit branch and warehouse of the Excelsior Supply Co., at 29 Atwater street. The sale

carries with it the distributing agency for Shelby steel tubing. W. M. Roberts will remain in charge of the establishment as heretofore.

**Figures Show Big Company's Prosperity.**

Preceding the annual meeting of the United States Motor Co., which will occur in Jersey City on the 20th inst., President Briscoe has issued some preliminary figures which forecast the nature of the reports that will be rendered at the meeting of the big company.

"The volume of business done by this company for the three months August, September and October, 1910, was 57½ per cent. greater than for the corresponding period of 1909," he says. "On November 29 the cash balance of the United States Motor Co. and its affiliated companies was \$1,359,354. Contracts have already been closed with dealers which call for the delivery of 30,000 cars prior to August 1, 1911. Daily sales during November are considerably in excess of those for the same month last year."

**Locomobile Opens Branch in Washington.**

The Locomobile Co. of America has established a branch in Washington, D. C., at 1124 Connecticut avenue. It will be in charge of J. E. MacDonald and will be subsidiary to the Philadelphia branch, of which S. de B. Keim is manager. The Washington establishment will include salesrooms, garage and complete repair shops manned by experts from the Locomobile factory.

**Shurmeier Making More Room for Trucks.**

The Shurmeier Motor Car Co., which was organized in St. Paul, Minn., last spring, with \$200,000 capital stock, to manufacture trucks, has let contracts for the erection of a two-story addition, 50 x 200 feet, to its plant at University avenue and Griggs street. E. D. Dobson, formerly with the Packard company, has been engaged as factory superintendent.

**Wyckoff Heads Sioux City Dealers.**

At a meeting held last week, C. M. Wyckoff was elected president of the Sioux City (Ia.) Automobile Dealers' Association; George D. Cord, vice-president; Len Lesenich, secretary and treasurer, and J. W. Place, assistant secretary. The association also decided to hold its annual show February 27 to March 4.

**Three Visitors Here from Benz Factory.**

Charles Neumaier, director of the Benz plant at Mannheim, Germany, and George Diehl and Fritz Wuernall, of the Benz engineering staff, are in this country. The chief purpose of their visit is to confer with the American importers of the Benz car and incidentally to take a survey of the American situation.

**IMPORTS TAKE A SLUMPISH TURN**

**Record for October Shows Drop of More than 50 Per Cent.—Ten Months' Decrease Nearly \$900,000.**

As marking the continued decline of the demand for imported automobiles in this country, it is significant that only 59 foreign cars were imported during the month of October last, as compared with 144 during October, 1909. The total value of cars imported during the month was \$125,919, as against \$290,857, the average value per car thus having increased by a little over \$100. What is even more remarkable, the value of parts importations has dropped from \$84,084 last year, to \$23,409. France, the heaviest contributor for the month in question, sent over 30 cars, valued at \$63,704, as against 57, valued at \$110,385 a year ago, while the value of the United Kingdom's exports to the United States dropped from \$50,888 to \$9,821, only four cars being transplanted from British soil, as against 22. Italy, the second largest contributor, sent over 13 cars, as against 49. Germany more nearly held its own, with seven cars this year, as against nine last year. The total value of cars and parts imported for the ten months ending October was \$2,364,248, as compared with an aggregate of \$3,249,726 for the corresponding period of last year.

**Santa Ana Sees \$2,000,000 in Spring Tire.**

Out in Santa Ana, Cal., they are grooming another "revolutionizer" that is destined to turn the tire trade upside down and put the pneumatic tire out of business. It is a leather cover in which is artfully concealed "a series of springs interlaid with oil felt." Like the spring hub, spring tires of this sort have been "revolutionizing" the industry ever since Dunlop first pumped air into a rubber tube. I. O. Wilson, of Santa Ana, is the father of this latest device and his friends and neighbors think so well of it that it is stated in all seriousness that they are organizing a \$2,000,000 company to manufacture it.

**Trimming Company Acquires Big Plant.**

The American Auto Trimming Co., of Detroit, Mich., has leased the buildings in that city left vacant when the Hudson Motor Car Co. recently removed to its new plant and will take possession January 5. The main structure is 200 x 51 feet.

**Kirkham Forms an Airship Company.**

C. R. Kirkham, who recently retired as general manager of the Kirkham Motor Mfg. Co., of Bath, N. Y., has formed the Kirkham-Eells Aeroplane Co. in that village. He will continue to produce motors, but they will be of the aerial type.

## LIGHT ON "LEAGUE'S" CHARTER

(Continued from page 674-)

T. Roadster, \$825; Ford Taxicab, \$950; E-M-F, \$1,250. Yours truly,

'International Automobile League.'

Mr. Corcoran—"Order one of those and see how quick they will furnish it to you."

Mr. Ainsworth—"We will have the Ford people here to testify to that."

It was brought out that John C. Glade, proprietor of the Herald-Press at Depew, N. Y., made an investigation of the league's headquarters at Buffalo. He learned that it was a dingy place at the best in a small store. When Mr. Glade went to inquire about a certain tire a certain number was called up on the telephone and subsequent investigation showed that the telephone message went to a cook at some house.

Mr. Corcoran—"Who employed him?"

Mr. Ainsworth—"He was a detective; but it is none the less true because of that. I will produce that man."

Mr. Corcoran—"It is absurd. We are getting Goodrich tires and can get them now—any amount you want."

Judge Fisher—"You don't claim you can get them from the manufacturers?"

Mr. Corcoran—"No; we will stipulate that."

Judge Fisher—"You have to buy from some middleman?"

Mr. Corcoran—"We get them from their offices, at the same prices or better, than their dealers get."

William O. Rutherford, assistant to the second vice-president of the B. F. Goodrich Co., then took the stand. He was asked:

"Where were you located in 1909?"

Ans.—"I was in charge of the Buffalo branch."

"Did you prior to 1909 sell to the International Automobile League any of your products?"

"No."

"Had they communicated with you at any time during the years 1908 and 1909 with reference to the purchase of your products?"

"During the inception of their organization they made application for our prices, which we refused. We had no further communication from them."

On cross examination by Mr. Corcoran the witness was asked: "Now, why would not your company sell the International Automobile League—this corporation?"

"We consider them," replied the witness, "a disturbing factor in the trade, destroying and breaking down the interests of the legitimate dealer. Our policy of sales was mapped out to sell through the wholesale stores or the stores of those legitimately engaged in the business."

Other witnesses sworn were George Lewis Holmes, of the United Manufacturers, and Charles Clark, of Hartford, Conn. Briefs are to be filed later by both sides.

## THE MOTOR WORLD

## THE WEEK'S INCORPORATIONS.

Cleveland, Ohio.—Kraus Motor Sales Co., under Ohio laws, with \$5,000 capital. Corporators—E. F. Kraus and others.

Kansas City, Mo.—Cino Auto Co., under Missouri laws, with \$10,000 capital. Corporators—D. S. Rettig, A. D. Kirkpatrick, Wm. Lingle.

Rocky Ford, Col.—Rocky Ford Auto Co., under Colorado laws, with \$25,000 capital. Corporators—H. M. Ingraham, E. D. Manny, N. D. Ingraham.

Norwich, Conn.—B. L. Co., under Connecticut laws, with \$50,000 capital; to deal in automobile accessories. Corporators—Otto Bruenauer, B. F. Leavitt, E. W. Perkins.

Forest City, Ia.—Winnebago Auto Co., under Iowa laws, with \$10,000 capital; to deal in automobiles. Corporators—H. S. Sorenson, J. B. Giving, C. O. Martinson, P. J. Foeken.

Chicago, Ill.—Ames Motor Car Co., under Illinois laws, with \$25,000 capital; to do general automobile and manufacturing business. Corporators—Vincent Bendix, William Loomis, Matthew Mills.

Chicago, Ill.—Barton-Dayton Motor Co., under Illinois laws, with \$125,000 capital; to manufacture and sell automobiles and other motor vehicles. Corporators—W. C. Dayton, M. A. Dayton, E. S. Carr.

Philadelphia, Pa.—Kendel Motor Car Co., under Delaware laws, with \$500,000 capital; to manufacture and deal in automobiles. Corporators—C. F. Black, J. K. Allen, F. Mettler, of Philadelphia, Pa.

Providence, R. I.—Frank J. McCaw Co., under Rhode Island laws, with \$25,000 capital; to deal in automobiles, automobile accessories, aeroplanes, etc. Corporators—Frank J. McCaw, John J. Daly, A. T. Daly.

Walkerville, Ont., Can.—Gramm Motor Truck Co., under Canadian laws, with \$100,000 capital. Corporators—H. W. Aca-son, J. K. Webster, John W. Kerr, Frank T. Chapman, W. H. Rudd, of Walkerville.

New York City, N. Y.—Motor Safety Crank Co., under New York laws, with \$50,000 capital; to manufacture motors, engines and accessories. Corporators—M. G. Worth, F. A. Linn, G. Reif, all of New York.

Youngstown, Ohio.—Kelly Automobile Co., under Ohio laws, with \$15,000 capital; to deal in automobiles and other motor vehicles. Corporators—R. M. Kelly, Earl F. English, Anna B. Kelly, R. D. Gibson, W. T. Gibson.

New York City, N. Y.—Ward Motor Vehicle Co., under New York laws, with \$200,000 capital; to manufacture motors, engines, machinery, etc. Corporators—C. A. Ward, W. B. Ward, L. S. Kafer, all of New York City.

New York City, N. Y.—Automobile Safe-

ty Lamp Co., under New York laws, with \$500,000 capital; to manufacture devices for the prevention of accidents. Corporators—G. M. Barlach, W. G. Chittick, F. Knowles, New York City.

Washington, D. C.—S. & S. Shock Ab-Crank Co., under New York laws, with \$300,000 capital; to manufacture and deal in automobile accessories. Corporators—F. S. Smith, R. J. Beal, Jr., F. E. Smith, all of Washington, D. C.

Portland, Me.—International Rotary Motor Co., under Maine laws, with \$250,000 capital, of which nothing has been paid in; to manufacture and deal in engines and motors. Corporators—William Louis Merrill, R. Loring Merrill.

Indianapolis, Ind.—Ford Motor Co., a corporation of Michigan with a capital of \$2,000,000, admitted to do business in Indianapolis, under Indiana laws, with a capital of \$2,965. Corporators—Henry Ford, J. S. Gray, J. F. Dodge.

Salt Lake City, Utah—Excelsior Motor & Supply Co., under Utah laws, with \$50,000 capital; to manufacture and deal in automobile supplies. Corporators—H. J. Hayward, W. A. Williams, Fred Barnett, B. L. Kessler, H. O. Karr.

Chatham, Ont., Can.—Walker Motor Car Co., under Canadian laws, with \$200,000 capital. Corporators—Michael E. Delaney, Detroit, Mich.; W. J. Regan, Chandler M. Walker, of Walkerville, and John F. Mounte, of Chatham, Ont.

Los Angeles, Cal.—Maryland Garage Co., under California laws, with \$50,000 capital, of which \$500 has been paid in; to operate a garage and renting service. Corporators—Orlando Miller, L. R. Perhamus, P. Ingram, Elmer I. Moody.

Brooklyn, N. Y.—Tire Chain Patents Co., under New York laws, with \$25,000 capital; to manufacture non-skidding automobile chains, accessories, etc. Corporators—F. Cormack, Port Ewen; E. E. Holmes and A. W. Britton, New York City.

St. Louis, Mo.—McQuay-Norris Mfg. Co., under Missouri laws, with \$100,000 capital; to manufacture and deal in automobiles and machine supplies. Corporators—George S. Johnston, William K. Norris, Louis McQuay and others.

St. Louis, Mo.—Standard Casting Machine Co., under Missouri laws, with \$25,000 capital; to manufacture machines for the casting of aluminum, bronze, etc. Corporators—Martin Fellhauer, James M. Allen, E. M. Fellhauer, L. F. Allen.

Rochester, N. Y.—Flower City Automobile Co., under New York laws, with \$5,000 capital; to deal in automobiles and other motor vehicles. Corporators—George V. Kundolf, Irving F. Hoyt, August Kalofski, Thomas J. McGovern, all of Rochester.



## IN THE RETAIL WORLD.

McCormick & Marx have opened a garage and repair shop in Hudson, S. D.

The Brosius-Sesline Automobile Co., of Ft. Wayne, Ind., has filed a notice of change of name to Brosius-Hocker Automobile Co.

Plans have been filed for a new garage to cost \$2,000 by Alfred Crew, of Paterson, N. J. It is to be located at 643 East 17th street.

Under the style the Ozauke Auto Co. a new concern has opened its doors in Port Washington, Wis. Ford cars will be shown exclusively.

Felix Oglesby, who used to run a garage in Talladega, Ala., has turned to other less strenuous pursuits and sold his business to Gibson Stringer.

Maquoketa, Ia., although it has only about a couple of hundred inhabitants, soon will be possessed of a garage. Nicholas Francois is building it.

Probably because he has urgent business at the North Pole, Jack Frost has sold his automobile business in Emmett, Idaho. H. E. Anderson is the new owner.

M. A. Dozier, of the firm of Dozier & Co., Taylor, Tex., has purchased the interest of his partner, C. D. Patterson. He will continue the business in his own name.

Work has commenced on a new garage to be erected in Westfield, Mass. It is located at the corner of Franklin and Maple streets and will be managed by Charles C. White.

R. T. Mitchell, of Philadelphia, Pa., has purchased the property at the corner of Thirtieth street and Allegheny avenue, and will erect a large garage thereon. The lot is 150 x 225 feet.

W. J. Laubendorfer and E. D. Engelage have formed the L. & E. Auto Co. and located at 1249 Bedford avenue, Brooklyn, N. Y. They have the Long Island agency for the De Tamble cars.

C. L. Frith, of Topeka, Kans., has purchased the business of the North Topeka Motor Car Co., and will continue it in his own name, adding a renting service to the regular garage business.

Ground has been broken for a new garage in Ottawa, Illinois. It is to be occupied by the Ottawa Garage Co., and will be 46 x 120 feet, of brick and steel, and ready for occupancy by February next.

A. Montenegro and A. L. McCormick, both of Louisville, Ky., have formed the Hudson Motor Car Co., and opened a salesroom in that city. As the name indicates, they will specialize in Hudson cars.

L. A. Mitchell, of Jacksonville, Fla., has organized a new company under the style the Mitchell Motor Car Co., and will handle Brush runabouts. M. W. Velsey, of St. Louis, Mo., is the manager of the company.

The Pope-Hartford Garage is the title of a new establishment which has been opened as a salesroom and garage at 237 W. Washington street, Phoenix, Ariz. Hudson and Pope-Hartford cars are shown.

Located in one of the most advantageous parts of Philadelphia, Pa., the new Powelton Garage, at the corner of Lancaster avenue and 34th street, has just been opened to the public. G. Myers is the manager.

Seward & Crane is the style of a new concern which shortly will open up at the corner of Landsdowne and Franklin streets, Cambridge, Mass. Their garage covers 197 x 115 feet, and will cost when completed \$25,000.

The Otto Sales Co. is the style of a new concern which has opened up at 165 Huntington avenue, Boston, Mass., and which has the New England agency for the Otto car. N. C. Smith and C. L. Costello are the responsible men.

J. W. Bishop, J. C. Bishop and C. N. Griffin, of Alachua, have formed a partnership under the style the Rambler Automobile Co., and will open a salesroom in Jacksonville, Fla. Rambler cars are to be the chief stock in trade.

G. A. Knepper, of Bryan, Ohio, has purchased the garage and repair shop of Clarence Bishop, on North Main street, and will continue it in his own name. Bishop has joined the Bryan Hardware Co., whose automobile department he will manage.

W. E. Corby, one of the chief stockholders in the White Garage Co., of St. Louis, Mo., has sold his interest to F. L. Hendricks and Clemens A. Poole, the former taking the position as manager of the company. The headquarters of the company are at 5023 Delmar boulevard.

Under the management of Col. K. C. Pardee, a new metropolitan retail branch of the United States Motor Co. has been opened in that company's building at 7 West 61st street, New York City. Columbia and Maxwell cars form the whole of the automobiles on exhibition.

Organized with a capital of \$25,000, the Frank J. McCaw Co. has taken over the J. W. Bowman Co.'s Providence (R. I.) branch at 186 Washington street, of which Frank J. McCaw, the treasurer-manager, formerly was manager. He will continue to handle Stevens Duryea cars.

Kardell Brothers, who are the St. Louis (Mo.) agents for the Reo, Fal and Gramm cars and trucks, have incorporated their business under the style the Kardell Motor Car Co. Simultaneously, they opened new salesrooms at 4152-56 Olive street. H. F. Fahrenkrog is in charge of the pleasure vehicle department.

W. S. Jewell, former manager of the New York branch of the H. H. Franklin

Mfg. Co., has opened salesrooms at 250 West 54th street, New York City, where he will display Kelly motor trucks. He has the sole agency for New York and vicinity.

The Frank O. Renstrom Co., whose garage, on Stanyan street, San Francisco, Cal., was destroyed by fire a short time ago, now is located at the corner of Van Ness and Golden Gate avenues. The company is the Pacific representative for the Kline car.

Organized with the intention of marketing Metz runabouts in Cleveland, Ohio, a new company has established salesrooms at 1718 Crawford road, in the Forest City. It will do business under the style of the Mark Motor Car Co., with H. J. Mark as president and general manager.

The Omaha Tire Repair Co. is the style of a new concern which has been organized in the Nebraska city of that name. George T. Toozer is president, and Henry Nygaard is secretary. The headquarters of the company are at 2201 Farnam street.

Under the style the Albany Automobile Dealers' Association, a new association has been formed in Albany, N. Y. The object of the association is the mutual protection of dealers and the holding of automobile shows. J. P. A. Ketchum, C. D. Hakes, Joseph B. Taylor, W. N. Grunsel, J. B. Wood, C. S. Ransom and W. E. Foskett are the directors.

G. B. Jeffrey, of Cedar Rapids, Mich., has purchased an interest in the Des Moines Vulcanizing Co., at 420 West 8th street, Des Moines, Ia., of which his brother, W. B. Jeffrey, is president. He takes the place of L. D. Wohrer, who left the concern on account of bad health, and will take charge of the newly added automobile sales department. Regal cars are to be shown exclusively.

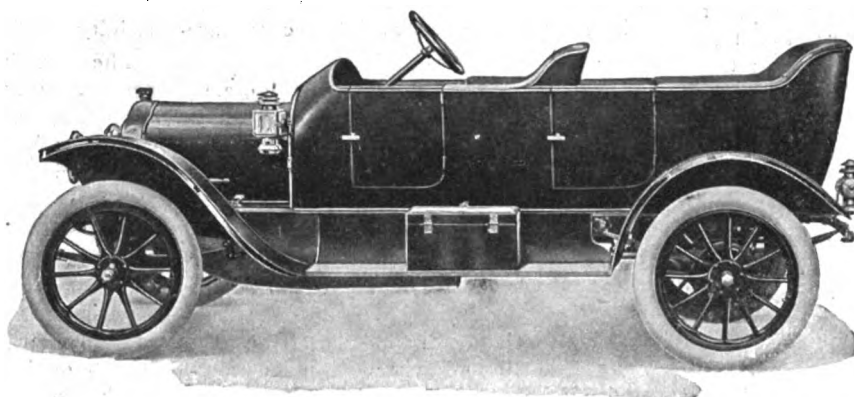
Hoping to add considerable revenue to its depleted treasury, the Roman Catholic Church of Corpus Christi, in West 121st street, New York City, is building a garage on the property in the rear of the church, facing on 122d street. The congregation will own the site and building, but the garage will be leased to Carlos P. Duque. It is to be 100 x 90 feet, with concrete floors and of fireproof construction, and will cost \$85,000.

## Recent Losses by Fire.

South Orange, N. J.—Walter F. Dormitzer, garage and one automobile burned. Loss \$8,000.

Decatur, Ala.—John Almond, garage and two automobiles destroyed. Loss estimated at \$10,000; partly covered by insurance.

New York City, N. Y.—Blue Sprocket Garage, Edward R. Hewitt, owner, 8 East 31st street, building and contents destroyed. Loss heavy; covered by \$41,000 insurance.



## Whose Judgment Will You Take?

**W**HOSE judgment will you take when selecting a car for your personal use? Do you understand mechanics?—does a gear cut from heat-treated chrome nickel steel look any different to you than one from malleable iron?—could you tell the difference? Does length of stroke or size of cylinders mean anything to you, unless backed by the performance of the cars in the hands of the owners? In the long run doesn't it really mean that you must trust someone? And wouldn't you better trust to the trained minds of our organization—to our engineers who have been studying these problems for years? Isn't the stability of a manufacturer of importance to you?—don't you need to know that he is going to be in business and make the guarantee of his car good?—don't you need to know his Dun and Bradstreet ratings?

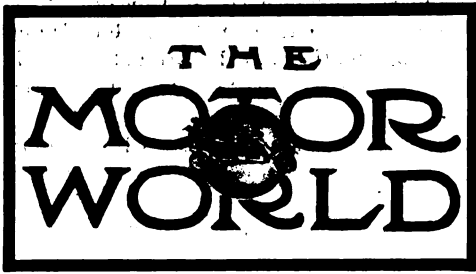
The White Company has been building machines for service for fifty years or more—they have been building automobiles that endure for over ten years, and some of the first models may still be seen doing yeoman's service on the streets.

When we tell you that our gasoline models are the best we know how to build—that they will run more economically for you—that they will do all the things you expect of them, or of any car, regardless of price—isn't it fair to presume that we have tested the proposition and know something of what we speak? We are building cars for continuous service, and whether they be gasoline or steam driven, we are striving to produce the best. The performance of our cars in the hands of owners everywhere is your assurance that we have accomplished the result for which we have striven.

Let us send you literature which tells the intimate details; or better yet, let us demonstrate the cars themselves.

**The White  Company**

830 East 79th Street, Cleveland



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NEW YORK, DECEMBER 15, 1910.

"In my travels, I've learned that there is one great difference between the Motor World and other automobile publications," a few days ago remarked a man high up in the parts and material trade whose duties take him into practically every factory in the industry. "The Motor World usually is open and in evidence in all of the places I visit, indicating that it is read; the other publications as often have not been removed from their wrappers, and not infrequently there are accumulations of several weeks' issues, all of them unopened and unread."

#### Automobiles for Public Service.

When the automobile was proven to be practicable, a line of development was forecast for it which never has been prosecuted to an extent approximating its real possibilities, i. e., the adoption of the motor car as an auxiliary to the handling of traffic by public service enterprises.

Street car lines as conducted in many cities are productive of no dividends, and not infrequently bring losses to the companies operating them. These lines nevertheless require as costly an equipment in rail and wire as the most profitable ones, and franchises often compel their operation when otherwise they would be discontinued.

As a substitute, automobiles with a sufficient passenger-carrying capacity would seem to meet all the needs, save much expense, and become an entirely satisfactory means of transportation to patrons. Doing away with wires and the necessity of tracks, they would enable companies to put lines into operation where now they are impossible or prohibited.

The carrying of passengers over specified routes could be undertaken even by persons with small capital. Only the edge of this development has been touched by the use of the taxicab. That people would come to rely on interurban or intervillage automobile lines, where electric and steam roads do not run, exactly as heretofore they have depended on horse drawn stages, scarcely admits of much argument.

#### Winter Proves Automobile Efficiency.

With the coming of the first snow is afforded what may be termed the demonstration of motor vehicle efficiency for the whole year. For while the initial snowfall invariably is the occasion for the stalling of numerous luckless automobile drivers, who venture into soft snow without chain grips on their tires and thereafter advertise their improvidence by racing their engines with mufflers cut out for more or less extended periods, in the majority of cases little trouble is experienced. Indeed, exceptions of this nature, while calling attention to the plight of the individual, by no means reflect any discredit on the motor vehicle as a class of traffic. Automobiles that become stalled in the snow invariably are pulled out by other automobiles, referring to city conditions, of course, while for every car that becomes disabled in this way another may be found that, under more skilful handling, is negotiating equally difficult conditions without delay.

Incidentally, the chauffeurs of experience are accumulating a store of experience that stands them in good stead when the critical season arrives. This applies equally to operators of passenger-carrying ma-

chines and trucks. The latter, in particular, are liable to become stranded unless they exercise the best of judgment and considerable ingenuity at times as well. A recent instance in point is illuminating. A large motor truck became stalled on Broadway in New York City, directly in front of one of the many establishments that, taken collectively, constitute "automobile row." The truck was empty and the solid rubber tires spun furiously over the hard-packed snow without obtaining the least amount of traction. After one or two futile attempts to get started, the driver pondered for a minute or two, and then, going into the store, presently reappeared with two or three heavy packing cases, which he trundled out and loaded on the truck immediately over the rear axle. With this "borrowed" load he was enabled to start without further delay, merely as a result of adding a little weight over the driving wheels.

The real strength of the automobile, when it comes to overcoming obstacles, is shown to best advantage, however, by comparison with the performance of horses under similar circumstances. Where the animals can obtain practically no footing the properly handled truck can proceed with safety, and where teamsters are obliged to carry only partial loads because of the adverse condition of the streets drivers of motor vehicles are able to haul full capacity. Indeed, the frequency with which the spectacle is seen of a motor car assisting a teamster who is stalled bears eloquent witness to the effectiveness of the newer form of transportation.

#### Salesmanship vs. Order Taking.

Each year the industry is approaching closer to the point where the distribution of its products will depend entirely upon the qualities of true salesmanship. It has not always been as difficult to sell automobiles as it is this year; it never will be as easy again. Many salesmen of the last few years owe their achievements and their prosperity not so much to their own efforts as to the impetuous condition of the business, but with the settling of conditions a process of elimination has been taking place; a process that still is in progress.

A recent incident that aptly illustrates the point occurred in a city of the Middle West that has reason to be proud of the success of more than one automobile con-

cern. There had been considerable talk of price cutting, and when the head of one organization widely known called in his selling staff one day the young men crowded close about him eager to know if they were to be permitted to share in the slaughter, to meet prices with prices.

"No!" he exclaimed with characteristic vehemence. "There will be no cutting in any way, shape or manner. We have been able to get along without it so far and we have had no trouble whatever, and we shall maintain the same policy in the future. And I want you all to remember," he added with emphasis none the less emphatic for being a little trite, "I want you to remember that you are salesmen, not mere order takers."

The average live automobile builder of the day is facing many serious problems, but none, perhaps, that is more vital to his future success than that of securing the right kind of material for his sales force and of developing it to such a point that it will find an outlet for his product without forcing him to resort to the bung-starting methods of the price-cutter. Anybody can sell cars that are listed below their real value or marketed without real listing—anybody can be clerk and take orders; but it takes a real salesman to sell real goods in real competition, and the market for real salesmen in the automobile industry is building up in direct ratio to the increase of production.

One day last week two small boys in New York coasted into a motor car. One of the lads is dead; the other is seriously injured. Presumably the sad mishap will figure in the list of "fatal accidents" that always is called up when legislators and professional "accelerators of public sentiment" seek to show that all owners of automobiles should be licensed and that their "right" to use the public roads should be rendered revocable.

If Barney Oldfield already has not substantially recognized the Los Angeles reporters for their valuable aid it is time he did so. Their spreadeagle efforts to make the outlawed partner of Jack Johnson appear a martyr and a savior of the white race are enough to make even a mule laugh. The Los Angeles papers must be queerly constituted or hard pressed for "copy" to stand for such guff.

## COMING EVENTS

December 12-17, Los Angeles, Cal.—First annual "independent" show of Los Angeles Motor Car Dealers' Association at Shrine Auditorium.

December 24-31, Los Angeles, Cal.—Second annual show of Licensed Motor Car Dealers' Association of Los Angeles at Fiesta Park.

December 25-26, Los Angeles, Cal.—Twenty-four hours race at Motordrome.

December 26, Lake Charles, La.—Race-meet on Fair Grounds track.

December 31-January 7, New York City—"Independent" automobile show in Grand Central Palace.

January 2, San Francisco, Cal.—Panama-Pacific road races.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 7-14, New York City—Association of Licensed Automobile Manufacturers' eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 10, New York City.—Meeting of executive committee of American Automobile Association.

January 11, New York City.—Meeting of executive committee of National Association of Automobile Manufacturers

January 11, New York City.—Meeting of the executive committee of the Association of Licensed Automobile Manufacturers.

January 11-12, New York City—Annual meeting of the Society of Automobile Engineers.

January 12, New York City.—Meeting of board of managers of the Association of Licensed Automobile Manufacturers.

January 13, New York City—Annual banquet of the Motor and Accessory Manufacturers at Waldorf-Astoria.

January 14-28, Philadelphia, Pa.—Annual January 14-21, Milwaukee, Wis.—Milwaukee Automobile Dealers' Association's second annual show in the Auditorium.

show of Philadelphia Licensed Automobile Dealers' Association in Third Regiment Armory.

January 16-21, New York City—Association of Licensed Automobile Manufacturers' eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 18, New York City—Annual banquet of the Automobile Trade Credit Association.

January 25-28, St. Paul, Minn.—First annual show of automobile dealers in Auditorium.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual show in Coliseum. Pleasure and commercial cars, motorcycles and accessories.

February 6-11, Buffalo, N. Y.—Annual show.

February 13-18, Washington, D. C.—Second annual show in Convention hall.

February 14-18, Dayton, Ohio—Second annual show in Memorial building.

February 18-25, Binghamton, N. Y.—Annual show.

February 18-25, Minneapolis, Minn.—Minneapolis Automobile Show Association's annual show in National Guard Armory.

February 18-25, Newark, N. J.—New Jersey Automobile Exhibition Co.'s fourth annual show.

February 18-26, Brooklyn, N. Y.—First annual show of Brooklyn automobile dealers at 23d Regiment armory.

February 20, Cleveland, O.—Show in Central Armory.

February 20-25, Baltimore, Md.—Annual show in Fifth Regiment Armory.

February 20-25, Cincinnati, O.—Cincinnati Automobile Dealers' Association's show in Music Hall.

February 20-25, Omaha, Neb.—Third annual show of the Omaha Automobile Show Association in Auditorium.

February 24-27, New Orleans, La.—First annual show of New Orleans Automobile Club at Fair Grounds.

February 25-27, New Orleans, La.—New Orleans Automobile Club's annual Mardi Gras racemeet on Fair Grounds track.

February 25-March 4, Toronto, Canada—Annual show under auspices of Ontario Motor League.

February 27-March 4, Kansas City, Mo.—Fifth annual show of Kansas City Automobile Dealers' Association.

February 27-March 4, Sioux City, Ia.—Automobile Dealers' Association's annual show.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 6-11, Dayton, Ohio—Dayton Automobile Club's show in Memorial building.

March 7-11, Des Moines, Ia.—Third annual show of Des Moines Automobile Dealers' Association at the Coliseum.

March 11-18, Cleveland, O.—Manufacturers and Dealers' Association's show in Central Armory.

March 18-25, Pittsburg, Pa.—Annual show in the Exposition Building.



**WHEN DEALERS' TAGS MAY BE USED**

**New York's Attorney-General Answers Question Affecting Second-Hand Cars—Spirit and Intent of the Law.**

Automobile dealers or manufacturers in New York State, when properly registered, upon the purchase of a properly registered car, may operate it under the regular dealer's registration, without having the individual registration of the car transferred, as would be necessary in the case of a car purchased by an individual. The only requirement in such a case is that the change of ownership be reported to the Secretary of State in the manner prescribed by the Callan law. This is indicated by a ruling issued by Attorney General O'Malley in response to a test question and clears up some doubt that had existed as to the proper procedure in such cases. The principle applies in particular to the purchase of second-hand cars, and indicates that, so long as they are of the style and type described by the dealer's registration they are properly included in the privileges which that registration carries.

The question submitted was:

"May a duly registered manufacturer or dealer, upon the purchase of a registered car, properly operate the same under regular dealer's license without further complying with the provisions of subdivision 8, above mentioned?"

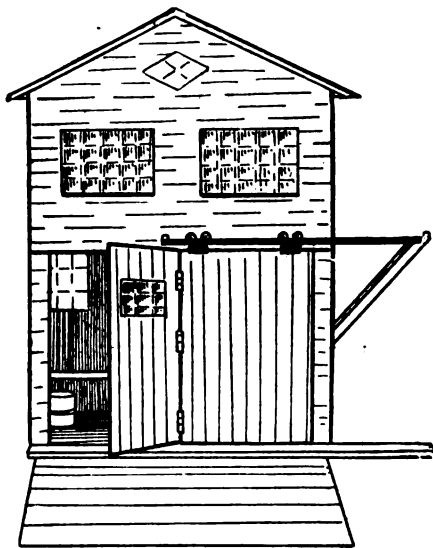
"Subdivision 8 provides that upon the sale or transfer of a motor vehicle registered in accordance with the statute, the vendor shall immediately give notice of such sale, with the name and residence of the vendee, to the Secretary of State," says Attorney General O'Malley in rendering his opinion. "Section 284 of the act provides that every person, firm, association or corporation manufacturing or dealing in motor vehicles may, instead of registering each vehicle, make a verified application for a general distinctive number for all vehicles owned or controlled by such manufacturer or dealer, which application must contain a brief description of each style or type of vehicle dealt in.

"The first provision evidently is for the purpose of keeping a definite record of the name of the owner of each registered vehicle. The second provision gives a privilege to dealers to register all their vehicles under one number. In case a dealer or manufacturer purchases a duly registered vehicle, I see no reason why the spirit and also the letter of the law is not complied with if he thereafter operates that car under his dealer's number, provided the car is one of the style or type described in the application for the dealer's registration, and provided also the car is purchased

for resale or for the same purpose as those usually operated under dealer's or manufacturer's registration. In order to carry out the intent of the act, however, so that a complete register may be maintained of each separate vehicle, it is obvious that notice of the sale or transfer to the dealer should be given as provided in subdivision 8. With this qualification, therefore, my answer to your question is in the affirmative."

**Sliding Doors for One-Car Garages.**

Small garages that are built large enough to house one car only, necessarily must have a door that practically takes up an entire end of the building, and though in



many cases it is desirable to hang a roller door, the width of the garage does not permit a sufficient length of track upon which to hang the door in the usual manner.

A way in which this difficulty may be overcome is to make two smaller doors and hinge them together; one of them being fitted with rollers and run in an overhead track, as shown in the illustration. When the hinged door is opened and folded against the first door, both can be rolled back over a very short space.

**Truck Association Becomes Truck Club.**

After thinking it over for a week, the New Yorkers who formed themselves into the Motor Truck Competition Association with a view of controlling and regulating that form of competition, decided that it was rather a tall task, and accordingly adopted a new and more modest title, the Motor Truck Club. J. A. Hemstreet, a free lance promoter, is president F. B. Porter, who handles Chase trucks, is vice-president, and E. A. Leavy, publicity manager for an importing house, is secretary and treasurer. The club is talking of promoting a six days' truck contest from New York to Boston and return during the Madison Square Garden show next month.

**STANDARD OIL SHOWS AT WICHITA**

**Its Educational Exhibit a Feature at the Local Show—Snow on Opening Night but Success Follows.**

Owing to some hitch in the arrangements with the Weather Man, it snowed in Wichita, Kan., on the afternoon and evening of Monday, 5th inst., which was the opening day of the local automobile show. The consequence was that some of the exhibits were delayed and that a large proportion of the expected attendance failed to materialize. A brave hundred or so of eager visitors put in an appearance, however, and were well rewarded for their hardihood in facing the storm by the exhibition that had been staged by the local dealers. Later on in the week, with better weather conditions and all the stands filled, the show fully came up to expectations, especially during the three days of the Hardware and Implement Dealers' Association convention.

The show, which was held at 114-118 North Lawrence avenue, was staged by 17 exhibitors, who displayed some 30 cars, all but three of which were gasoline driven, the others being electric.

An instructive feature of the show which was much appreciated was the educational exhibit of the Standard Oil Co., which included a device for indicating the viscosity of different classes of oils by causing air bubbles to ascend through a series of vertical glass columns, each containing a sample of lubricant different from that in the others. The rate of movement of the bubbles of course served to indicate the relative viscosity of the samples. A polarine apparatus for producing very low temperatures also was shown for the purpose of demonstrating the non-freezing properties of a special grade of oil that is produced for use in cold climates. This exhibit is scheduled to follow the middle western show circuit.

The list of exhibitors and their wares follows: Wichita Automobile Co., Chalmers, Reo and Waverley electric; Case Automobile Co., Case; Jones Auto Exchange, Ford; Peru-Van Zandt, Westcott; Halladay Motor Co., Halladay; Cadillac Service Station, Cadillac and Detroit electric; John Kirkwood, Lexington; F. P. Kreikenbaum, Cartercar; Cole Motor Co., Cole; Goodin Motor and Truck Co., Johnson truck; Arnold Automobile Co., Auburn; Shattuck-George Iron Co., Overland; Fred L. Wright, Buick; Jones Sporting Goods Co., motorcycles and accessories; Standard Oil Co., lubricants; Hockaday Auto Supply Co., accessories; Shattuck-George Co., accessories; Central Cycle Co., motorcycles and supplies.

**NEW YORK AWARDS ARE ANNOUNCED**

**But No Scores Accompanied the Announcement—Those Who Obtained Awards in the Several Divisions.**

On Thursday last, one week after the conclusion of the New York Automobile Trade Association's two days' chilling endurance run, the results were made public—that is, the winners were announced. No scores accompanied the announcement, however, because, according to rumor, some of them would not look well in print; and as all of the competitors are friendly rivals and near neighbors, what's a little thing like a score sheet between friends, anyway?

The first prize for cars in division 1A of the runabout class was won by William B. Young, who drove a Ford. He was the only competitor in this division and received the Cumberland Hotel Trophy. A. M. Day, driving a Hudson, annexed the Swan & Finch trophy for cars in division 2A, and Roy Stains, who drove a Pullman, was returned the winner in division 3A. Stains got a silver trophy donated by the Dorian Rim Co., a Mitchell, driven by O. R. DeLamater, receiving the second prize in this division, a trophy offered by the Smith-Haines Co. A Pullman also proved winner in division 5A, N. Gallatin, who drove the car, receiving the silver G & J Tire trophy. E. A. Hall, driving a Matheson, won in division 6A, and will receive a special prize, to be given by the New York Automobile Trade Association.

In the touring car class there were no awards made in divisions 1A and 2A. J. Ross (Maxwell) won in division 3A, with P. Haycock (Reo) second. They received the silver trophy donated by O'Donnell's Restaurant and the W. C. P. Supply House trophy, respectively. First prize in division 4A, a handsome silver trophy donated by the Splitdorf Magneto Co., was won by R. Schmidt, who drove a Haynes. In division 5A a Corbin, driven by H. H. Knepper, was first, receiving the Goodyear Tire and Rubber Co. trophy, while the Diamond Tire Co. trophy, second prize in this division, went to W. C. Poertner, who drove a National. T. Spear (Oldsmobile) won the Stewart & Clark trophy for first place in division 6A, and the second prize, donated by the General Automobile Supply Co., went to M. Wagner at the wheel of a Columbia. The awards were made on Tuesday last at a luncheon held at the Automobile Club of America.

The positions of the cars in the order of their unspecified scores were as follows:

**Runabout Class.**

Division 1A—Wm. B. Young, Ford.  
Division 2A—A. M. Day, Hudson.

Division 3A—Roy Stains, Pullman; O. R. DeLamater, Mitchell.

Division 4A—No award.

Division 5A—N. Gallatin, Pullman.

Division 6A—E. A. Hall, Matheson.

**Touring Car Class.**

Divisions 1A and 2A—No awards.

Division 3A—J. Ross, Maxwell; P. Haycock, Reo.

Division 4A—R. Schmidt, Haynes; H. Welker, Pullman.

Division 5A—H. H. Knepper, Corbin; W. C. Poertner, National; F. Hermance, National; A. Holtzmüller, Speedwell; H. Yule, Stoddard-Dayton; Chris. White, Babcock.

Division 6A—T. Spear, Oldsmobile; M. Wagner, Columbia; A. Warren, Pope-Hartford.

**Frost Falls on Oldfield's Racemeet.**

Despite the fact that the Los Angeles reporters have devoted columns and "scare heads" to the cause of Barney Oldfield, and have portrayed that "outlaw" as a man deserving of a halo, only about 500 of the Los Angeles people who were said to be burning with desire to see Oldfield exhibit himself, were interested enough to attend the exhibition which was given on the dangerous Ascot Park track on Sunday last, 11th inst. The affair was to have been started the day before, but rain prevented. Oldfield is credited with driving a mile in 51½ seconds. He also won a five miles open race and finished second to A. Eugene Martin, who drove Oldfield's Knox, in a free-for-all handicap. Robert Kittle (Cutting) won an event for cars under 300 cubic inches. The other men who outlawed themselves by competing were Ben Kirscher (Darracq), who is regularly employed by Oldfield to promote close finishes; Harry Buckley (Pope-Toledo), and W. H. Foust (Winton). Leslie Henry figured as manager of the meet, but it is openly charged that he merely is a mask for Walter Hemple, who manages the Los Angeles Motordrome.

**Portola Becomes Panama-Pacific Race.**

The title of the Portola road race, which will be held in San Francisco and which finally has been set to occur on January 2, has been changed to the "Panama-Pacific road race," the change being made in deference to the general publicity campaign of the Panama Exposition, for which San Francisco is bidding so aggressively. The necessary permits have been secured. The course will be 10.91 miles in length, about one-half of the distance of the 1909 circuit. The principal prize will be the St. Francis trophy, which was given for the 300-mile race held at Tanforan last September. The present classification provides for three events—a light car race, which will go 98 miles; a heavy car race, of 153 miles, and a free-for-all, of 240 miles.

**LAWYER "GETS HIS DANDER UP"**

**Arrested for Speeding, He Attacks New York Law and May Force Decision of Much Discussed Point.**

Although the Callan automobile law of New York state has been in force for over four months, there still are being discovered twists and turns in it which seem to have escaped the eyes of the law makers and commentators. In the copy of the bill submitted by Assemblyman Callan during the last week of March, 1910, which included all the amendments and was supposed to show the exact wording of the law, Section 288 distinctly stipulated that only cities of the third class and incorporated villages were compelled to erect sign posts indicating the speed limits permitted within the borders of said incorporated communities, and just as distinctly exempted cities of the first and second class. Some time during the interval between the printing of the bill for final reading and the enacting of the same into law, on Monday, May 23d, the words "such city or village shall have placed conspicuously . . ." were changed into "each city or village . . ." thereby practically compelling New York and other cities of the first class to equip all highways leading into it with signs showing their speed regulations.

This important discovery was made when Arthur C. Train, special attorney-general in charge of the Queens county graft inquiry, was arrested in the Bronx for exceeding the legal speed limit. Attorney Train brought his legal learning to bear upon the case, with the unexpected and more or less unwelcome result mentioned.

While Mr. Train's line of defence mentioned other objections to the particular violation of which his own chauffeur was accused, his principal point involved the establishment of—or rather the failure to establish—the sign posts required by the Callan law. Magistrate Breen admitted that there existed a defect in this section of the law, but claimed that he and his fellow magistrates had discussed the matter thoroughly and had come to the conclusion that it would be too great an expense for the city to erect such sign posts on every road entering the limits of Greater New York. Mayor Gaynor also, when the matter was called to his attention, said the expense to the municipality would be too great to permit of the fulfilling of this particular demand of the Callan law.

In the opinion of some people the printing of "each" instead of "such" probably was due to a typographical error, and did not signify the intention of the framer of the law to shoulder New York with such an expense.

**DEMONSTRATING WITH A VENGEANCE**

**Merchant Puts Four Tons Extra Load on Truck to See What It Will Do—Overloading a Common Evil.**

Seldom does the prospective purchaser of a pleasure car ask that the car be made to do special "stunts," and when he does he usually is as lenient as possible. In the majority of cases he will leave the whole matter of the demonstration in the hands of the salesman, who picks his route and is thereby able to show the car to the best advantage. But when the same man contemplates the acquisition of a motor truck

builders have to contend—that of overloading. Unfortunately it is one that is not confined to demonstrations but frequently continues to shorten the life of the truck.

**Opening for American Cars in Norway.**

"After an investigation, I have no hesitancy in saying that this ought to make a good field for the sale of motor cars, if the business is carried on systematically and persistently," reports R. S. Rasmusen, American consul at Bergen, Norway.

"There are now only 15 automobiles in Bergen, and of these only one is of American make. It is not due to any lack of effort on the part of agents to sell machines that the number is so small, but rather to the lack of system and experience. There

**PRACTICES WHICH OFFEND PATRONS**

**Little Things that Have Caused Loss of Large Sales—Others that Have Alienated Good Will.**

They were talking of practices that offend purchasers and of the cast-iron, inflexible, high and mighty policies that prevail in some establishments.

"Do they pay?" remarked one of the party that was engaged in the discussion. "I confess I don't know, but I can recall two instances that show how they sometimes work. I know one man of wealth and position who placed an order for a \$4,000 car, specifying a particular body color. When the car arrived he called to pay for it and handed the check for \$4,000 to the manager of the establishment. 'There is an extra charge of \$30 for the special finish,' vouchsafed the manager as he eyed the fat check in his hand. 'But you booked my order at \$4,000,' responded the purchaser. 'The extra charge is always made; it is one of our company's fixed policies,' was the manager's reply. 'Let me have that check,' demanded the purchaser, who without another word tore up the piece of paper and walked out of the place.

"The other instance is as bad, if not worse. The purchaser in this case had ordered, and was about to take delivery of a \$3,000 car, when he decided that he wanted his initials painted on the doors. 'That will cost \$5 extra,' responded the salesman. 'Oh, no! it won't,' replied the buyer. 'You can keep the car.' And the dealer kept it, too."

"That salesman wasn't onto his job," volunteered another member of the party. "When I bought my car, I had a somewhat similar experience, but in slightly different form. I had not thought of putting a monogram on my doors; the salesman himself suggested it and in a tone that conveyed the impression that the monogram usually went with the car. I paid for the car and it was not until several days later—the first of the next month, in fact—that I received a bill for not only the painting of the monogram but for the gasoline with which the tank originally had been filled. It then was too late to kick, but before that firm gets any more of my money I'll think twice, maybe three times. A lot of people who are selling automobiles do not appear to realize that it is such little things as these that alienate good will and drive away customers. In most lines of business it is usual to give at least 2 per cent. for cash, and while it is not the custom in the automobile trade, it seems to me that such petty charges very readily and very properly may be made to serve as an offset."

"Yes; and there's another practice involving such charges that rub a man the



THREE-TON KISSEL TRUCK LOADED WITH SEVEN TONS OF POTATOES

some subtle change takes place in his mind and he delights in inventing herculean tasks for the truck to accomplish. That no test is considered too great is well illustrated by the experience of F. H. Morse, designer of the new Kissel truck, who recently was called from the Kissel factory in Hartford, Wis., to Chicago to demonstrate one of his three-ton trucks to the owner of a large commission house. The truck was backed up to a freight station, and while Morse's back was turned the vehicle was loaded with 93 sacks of potatoes of an average weight of 148½ pounds each, making a total of 13,800 pounds, which, with the weight of the three men added, totaled 300 pounds over the seven-ton mark. The fact that the three-ton truck successfully carried to its destination four tons more than its rated capacity pleased Morse as much as it did the commission merchant.

The incident aptly illustrates one of the more serious difficulties with which truck

are numerous wealthy people in Bergen and vicinity who can well afford to own cars, and there are many more who regard them as luxuries now who will be compelled to provide them as necessities in the near future.

"I have conferred with the agent who has sold nearly all the automobiles brought to Bergen relative to the introduction of American machines. Formerly he sold only German automobiles, but is open to engagements for American cars. He belongs to an old-established family of wealth and standing and possesses an indispensable qualification for this business, namely experience.

"The sale of automobiles in Norway will never assume the proportions per capita that it does in the United States, but there will undoubtedly be a large number of machines sold, and it is reasonable to suppose that they will be purchased from firms that have machines and representatives here."

wrong way," suggested a third member of the party. "I don't know how general it is, but I can speak from personal experience. It has to do with the subject of guarantees. When a man is seeking to purchase a car he never fails to hear a lot about guarantees and the policy of each manufacturer or dealer is 'taking care' of his customers. I was duly impressed with it when I got my car, but on two occasions during the course of a few months when small parts which wore unduly or which broke through no fault of my own, were replaced I did not fail to receive a bill for their replacement. When I kicked, the amounts were promptly charged off and the manager—it was a branch store—pleaded ignorance and apologized in a fashion that belied his professions. But I have a well defined suspicion that the policy prevails to get the money for taking such 'care' of customers, when it is possible to get it, and to 'apologize' when they put up very much of a kick, particularly as I am acquainted with others who 'enjoyed' the same experience at other establishments."

#### Motor Trucks to Compete with Railways.

With headquarters in Boston, the Boston and Suburban Electric Transfer Co. has been incorporated under the laws of Massachusetts, and has for its purpose the transferring, by means of motor trucks, of merchandise and other express matter between Boston and nearby towns. Couple-Gear electric trucks with trailers are to be used and while the initial venture will embrace only one route, that between Boston and Lynn, tentative plans include service to Malden, Medford, Charlestown, Chelsea, Cambridge, Waltham, Wollaston and Quincy. As it will be possible to load the trucks at the shipper's door and unload them at the door of the person to whom the goods are consigned, a saving of time and expense is anticipated over the existing methods of transportation, because of the single handling of goods necessary. The officers of the new company are: President, Frank D. Stranahan; secretary, George E. Coates; treasurer, William E. Eldridge, all of whom previously have been identified with the automobile industry. The other incorporators are George W. Gale, John A. Cousens, William E. Butler, Arthur B. Gilmore, Albert W. Lovett, Herbert W. Fairfield and Franklin H. Wentworth.

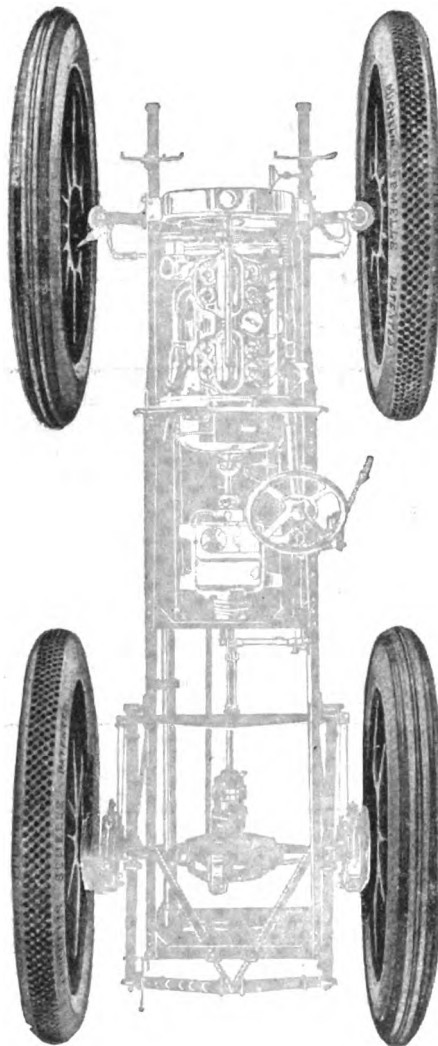
#### Railroad to Operate Motor Stage Lines.

In order to develop more fully the summer business in the White Mountain resorts of New England next year, the New York, New Haven & Hartford Railroad Co. has included in its plans for the operation of several automobile stage lines connecting with the Boston & Maine branch. This automobile service will reach for 70 miles, and will include the Fabyans, the Profile House and Bethlehem, N. H.

## HOW BEST TO PREVENT SKIDDING

Two Tire Manufacturers Offer Advice on the Subject—Their Recommendations, However, Are Not in Agreement.

In all communities which have been favored by snow falls during the past few days, motorists have revived the annual debate as to the proprieties of using tires of the plain and anti-skid types. Considering merely the merits of using plain and



MICHELIN ARRANGEMENT OF NON-SKIDS

anti-skid tires, and counting the possibility of employing from one to four tires of either type on various wheels, there are 16 different possible combinations. Where more than two types of tread are brought into the question it is obvious that the number of permutations and combinations is increased proportionately.

Fortunately for the welfare of such motorists as have not the leisure to determine the rights of the matter to their own satisfaction, some of the tire manufacturers have issued special instructions covering the use of anti-skid treads, although, as frequently happens with the prescriptions of different medical men, the rules are not

always uniform. In the case of the Michelin Tire Co., of Milltown, N. J., for example, the use of two Michelin anti-skid and two rubber tread tires is recommended as the ideal combination, provided that one of the anti-skids is used on the right front wheel and the other on the left rear wheel. The effect of this arrangement, it is explained, is to secure the gripping power of the anti-skids on wet or slippery surfaces, while the plain treads hold on hard, dry pavements; the effect applying both to the driving and steering of the vehicle.

In recommending the use of their "Nobby Tread" tires, on the other hand, Morgan & Wright, Detroit, Mich., urge the motorist not to apply them on alternate front and rear wheels, but always on opposite sides of the car. The reason assigned for this is that the gripping power of the nobbs is so great that when the brakes are applied the Nobby Tread takes about 90 per cent. of the strain of stopping. The same thing happens when making a turn, all the strain comes on one tire. "No combination of rubber or fabric could be devised which would stand up long under such usage," as is pointedly indicated.

#### How to Preserve Tires During Winter.

While substantially the same methods of caring for tires when in service obtain in the majority of cases, this is not so when the car is laid up for the winter. Always there is the difference of individual judgment, the weighing of details and the drawing of conclusions and the result is that everyone has his own pet theory as to the best course to pursue. The Firestone Tire & Rubber Co. advises that after the car has been jacked up, and if the tires are in almost perfect condition, they be partially deflated—just sufficiently to take the strain off the fabric, but not enough to allow the tube to collapse—and carefully wrapped to exclude light and kept away from heat. Where the tires are not in such good condition they should be removed from the rims, thoroughly cleaned of all foreign matter, repaired or retreaded as necessary and securely wrapped as in the first case. The rims also should receive attention and after any rust which has formed has been removed they may be polished with graphite or stove polish.

#### Resin for Brakes that Fail to Hold.

Brakes which fail to hold, particularly when this condition is caused by grease which has worked out of the differential housing and along the axle, may be made to hold temporarily by blowing a small quantity of pulverized resin in between the brake bands and the drums. Though this method is perfectly harmless to the brakes and their linings, it will not make a permanent repair and should only be relied on in case of emergency, and the brakes should be washed out at the first opportunity.

**MOTOR SLED BUILT FOR SPEED**

**Designed in France for a Russian Grand Duke—Employs Six Cylinder Engine and Turbine Air Propeller.**

For the past several years, due to the efforts of the Touring Club of France, automobile sleighs have been much more in evidence in that country than elsewhere, several satisfactory tests having been conducted. During the past twelve months one of the more or less distinguished dukes, attracted by this method of locomotion, has had built one of these self-propelled sleds, which is novel in that it is of unusual form

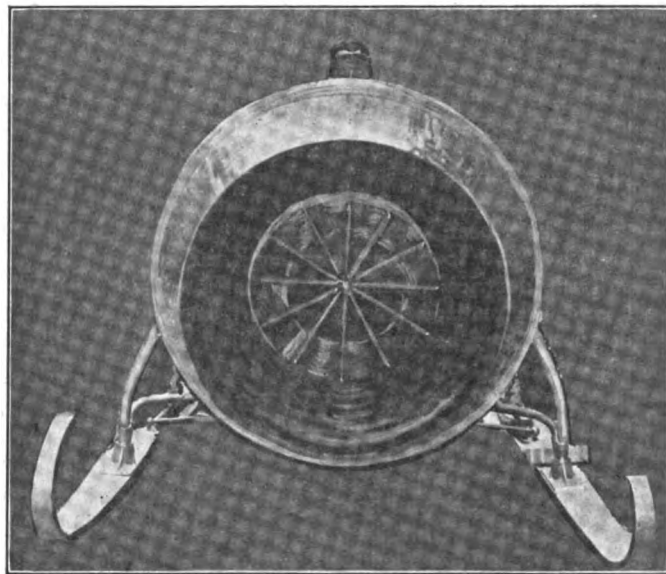
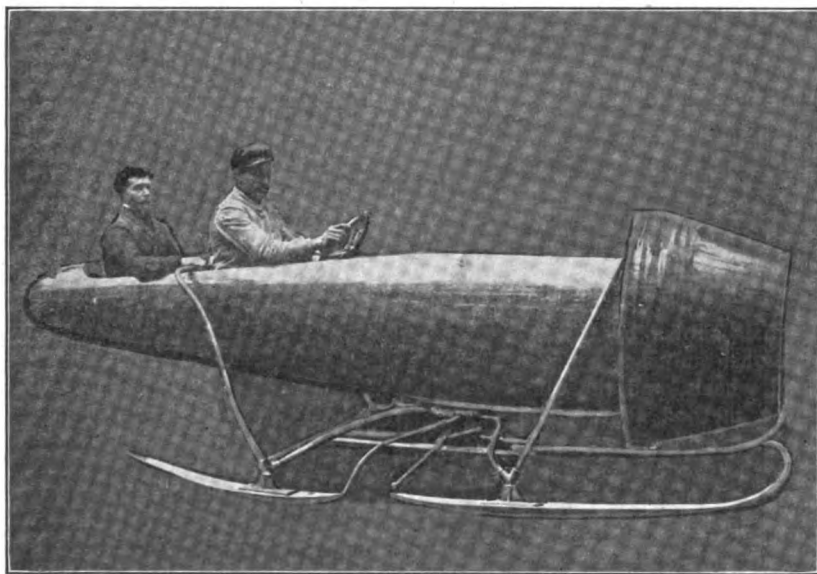
both the steering and driving done from the front wheel. This wheel is possessed of neither springs nor forks. The pressed steel chassis frame is dropped considerably for the part reserved for the driver's seat, and the two sections sweep upward and inward until they join in front. At this point the electric motor is carried, and the drive transmitted to the front wheel through encased gearing, a vertical propeller shaft with universal plunger joint at its base, and a bevel gear meshing engaging with the crown bevel on the wheel hub.

Current is supplied by batteries carried under the driver's seat. On one charge, 60 miles may be covered at an average speed of 12 miles an hour. The machines

**SOURCE OF MYSTERIOUS FIRES**

**"Static" Electricity Unsuspected, But Possible Cause of Inexplicable Conflagrations—Sparks from Finger Tips.**

While it has been known for some time that certain people are able to accumulate within their bodies, or rather in the skin of their bodies, a sufficient amount of "animal"—or static—electricity to cause a visible spark to be given off under especially favorable atmospheric conditions, no one hitherto has connected the discharge of such static sparks with the great number of "mysterious" fires occurring in garages.



SIX CYLINDER AIR PROPELLED MOTOR SLED DESIGNED FOR GRAND DUKE CYRIL OF RUSSIA

designed for high speed and is more of a "wind wagon" than a tractive vehicle. The particular noble who is responsible for it is Grand Duke Cyril of Russia.

As the illustration shows, the main frame and body work enclose the motor, tanks, steering control and seats. It is all reinforced, having two layers of material instead of one. The body of the sled is built to carry a turbine, in the specially formed funnel in the front, by which the sled is propelled. The motive power is furnished by a six cylinder Gregoire engine of 40 horsepower. Four wooden runners support the sleigh, the forward two serving to control the steering. Equipped with its motor of 40 horsepower, a speed of 100 kilometers an hour has been attained on ice. As it has a turbine drive, the sled can be run over soft snow.

**Electric Three-Wheeler Appears in Paris.**

One of the large department stores in Paris has a delivery system by which it distributes parcels by small electric automobiles having several unique features. They are three-wheeled machines, with

are designed to run in congested traffic where ordinary vehicles would be stopped. As the front wheel is of the caster type, the car can be turned with ease within its own length.

**Here's a Closed Car Without Doors.**

Whatever the limits of rationality may be in body construction it lies within the power of the British coach maker to exceed them. Thus, in the garage of one ardent motorist in the vicinity of London the torpedo body has given way to a doorless successor which has much the same lines as the torpedo, but is built as tight as the hull of a boat. As a gentle concession to the convenience of passengers, the designer of this peculiar creation has permitted a large chest to be placed on either running board, to which the owner and his guests may clamber from the running board, after straddling over into the cockpit interior. To enhance the marine effect the exterior of the body is ornamented by a longitudinal moulding running just below the rail, which is broadly suggestive of a shear strake.

powder mills, benzine establishments, chemical factories, etc. It seems, however, that a fire may well be started by such a static spark, entirely without the knowledge of the person responsible for it.

W. H. Tolman, one of the directors of the American Museum of Safety, is the author of the assertion and, as the result of a series of investigations, declares that when the temperature of the atmosphere surrounding such a susceptible person is just right, when the humidity has reached a certain degree and metallic objects of high conductivity are in close proximity, a spark will jump from the projecting finger, elbow or knee to such metallic conductor. Given the presence of gasoline vapor near the floor of a garage, where it is indiscernible to the olfactory organs, a spark jumping from knee or foot of such a "statically charged" person to a steam radiator or a water pipe may cause a most disastrous explosion, much to the mystification of the people present at the time, all of whom are able to swear that no "fire of any kind was in the room when the explosion occurred."

Commenting on the precautions to be



taken against such an occurrence, Mr. Tolman calls attention to the fact that a great deal of gasoline is permitted to spill over the floor of a garage, either by having the cans too full or by careless pouring of the liquid. This wasted gasoline evaporates in due time and lingers in the atmosphere close to the ground for a considerable time, mingling with the air and forming dangerous explosive mixtures. The strictest regulations as to smoking, dropping of matches upon the floor, etc., cannot obviate the possibility of static sparks being given off by any one of the dozen or more people continuously moving about in a big garage and igniting such explosive mixtures.

Mr. Tolman was moved to publish this bit of information by the recent factory fire in Newark, N. J., in which twenty-odd lives were lost. The fire was caused by the flaming of a can of gasoline which stood open in the shop, and the ignition is said to have been accomplished by a "static" spark, as no fire or flame of any kind existed in the room previous to the ignition of the gasoline.

While the peculiar possibilities of static electricity have been known for many years to scientists and to people who have had to do with electrical machinery, it has not been generally realized how dangerous these small sparks may become when conditions are favorable. It aptly is illustrated by a fairly well-known parlor trick which consists of lighting the gas by static electricity. All that is necessary is to shuffle one's feet rapidly a few times over a carpet, then to open the gas cock and hold a finger near the jet. A spark of from one-half to three-quarters inch long immediately will jump from the finger, and it is sufficient to light the gas. It seems odd that this familiar trick should not before this have been held responsible for fires and explosions, and it is not so remarkable that finally an explosion has been traced to its effect as that, with the great number of static sparks given off daily in chemical factories, powder houses and dry-cleaning establishments, where benzene and gasoline fumes continuously fill the air, there are not daily accidents solely due to this particular form of electricity.

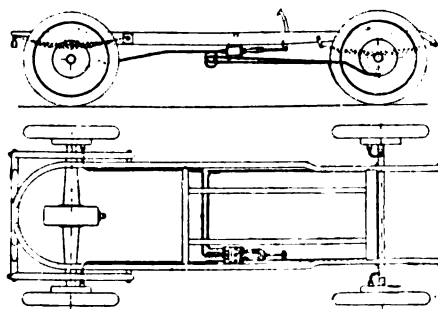
It would be difficult to suggest a remedy which could be relied on to be effective against discharges of static electricity. There is little danger of visible sparks occurring except between the fingers, knuckles and other projecting parts of the body, on one side, and metallic conductors—usually water, gas or steam pipes—which lead into the open air or the ground, on the other side. Wherever such "conductors" do exist, however, the possibility of "spark-ing" is always present, and the only safety devices would consist in effective and proper ventilation, a ventilation which also includes the part of the atmosphere nearest the floor, where gasoline vapor usually lurks.

## THE MOTOR WORLD

### BRAKING WITH FLUID PRESSURE

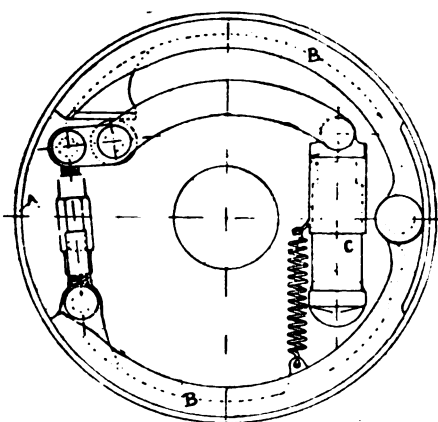
**Radical System Originated Abroad—Designed for Application to Front Wheels but is Applicable to All.**

Among automobile designers one of the problems which has been receiving attention ever since motor cars first were put to practical use is that of brakes, and to the many systems now in use the Weight Patent Brake Co., of Bristol, England, has added another, which is quite radical in principle and for which several advantages are claimed.



CHASSIS EQUIPPED WITH WEIGHT BRAKES

The system, which is shown by the accompanying illustrations, embodies a brake on each of the road wheels, and the difficulties in devising a method that would not interfere with the steering in any way, and that would have the proper compensation, have been overcome by the adoption of fluid pressure for applying the brakes. The feature of the Weight system is that all the brakes are applied synchronously,



WEIGHT HYDRAULIC BRAKE IN DETAIL

the advantage of this arrangement being that it not only ensures an even pressure on each wheel, which is not always secured by the ordinary compensating device, but that it avoids the wear and tear due to the braking stress being thrown onto two tires only.

Oil is used as the fluid; it is contained in a small reservoir, about four inches square, provided with two main cylinders, the pistons of which are connected directly to the

brake pedal. When the latter is depressed the oil supply is automatically cut off from the reservoir and discharged into the smaller cylinders attached to the compound levers in the brake drums. Compensation or balancing of the brake action in the different drums is automatically secured by this fluid system, thereby applying the brake power smoothly. The disposition of the various parts is such that the brake shoes respond instantly to the slightest touch of the pedal. The device can be arranged for either four wheel brakes or brakes on the front wheels only.

The makers assert that this system has been thoroughly tested on a powerful car during the past year, and that for four months it was not necessary to add oil to the reservoir supply.

### Torque Rods and Their Purposes.

But a vague idea at the best is entertained by many motorists as to the torque rod, or tube, and its purpose. Not a few are unaware, for instance, that where the enclosed shaft is used, the enclosing tube serves the purpose of the more usual form of rod which takes the form of a metal bar attached firmly to the rear axle casting, and having the forward end flexibly supported on the frame, preferably in line with the center of the forward universal joint.

As to its purpose: in a shaft driven car an equal pressure is exerted in the opposite direction when the bevel pinion exerts a pressure upon the bevel gear in the rear axle. When the force is applied to drive the car ahead, it tends to react to turn the axle casing backwards. Some provision must be made to prevent the axle from turning over, in order to make the wheels turn, and the torque rod or tube serves the purpose of receiving and resisting this twisting or torque action in the rear axle. In some cars the springs and spring seats are allowed to do the work of the torque rod, but the added work and strain upon these parts generally is considered as undesirable save in light cars.

### To Prevent the Abuse of Engines.

To prevent abuse of the engine by "racing" when the low speed gears are engaged, the N. A. G. wagon, which was designed especially to take part in the subvention trials which are at present being carried on by the German government, is equipped with a special form of accelerator lock. While the high gears are in mesh the accelerator pedal is given its full range of motion, but when the low speed and reverse gears are being used the pedal is locked so that the driver cannot increase the speed beyond a certain safe maximum. The truck in question is fitted with a four cylinder motor of 130 by 160 millimeters cylinder dimensions, roughly 53-16 by 67-16 inches, developing 45 horsepower at 850 revolutions per minute.

# Theory and Practice of Front Wheel Brakes

Although American automobile manufacturers have found no occasion to modify the essentials of what loosely may be termed standard design during the past two or three years, the same cannot be said of the manufacturers of Great Britain. Where the Continental manufacturers formerly took the lead in the introduction of new features, it is to England that attention must now be turned for real novelty. In this connection three distinct and extremely promising innovations have gained sufficient prestige to become worthy of notice. They are the slide valve engine, the worm drive and the front wheel brake. In certain respects the latter development may be considered the most important of the three, more particularly for the reason that it represents the attempted solution of a problem pertaining essentially to the motor car as a mechanism distinct in its properties from all other machinery. The development also is important because it relates to such a very vital portion of the machine.

It is now more than a year since front wheel brakes were adopted as standard equipment of several well-known makes of car, and, therefore, a sufficient period of actual use may be supposed to have elapsed to warrant consideration of the system from the practical viewpoint. Furthermore, the slight increase in the use of the system, as revealed by the recent Olympia show, gives rise to a very natural question as to whether it is likely to become a general characteristic with British builders in the near future. As to this latter point, it is impossible to tell at the present time, but the eager discussion of the question by the local trade press at the present time indicates that a very general degree of interest has been aroused in it.

In this connection, after pointing out the serious nature of the consideration which must be given any innovation in design, the *Automotor Journal* remarks that due regard must be given to the fact that "the majority of manufacturers still studiously avoid adopting the principle. On the other hand," continues the same authority, "front wheel brakes are being assiduously developed by firms which have reputations, and it is therefore quite obvious from these considerations alone that unusually conflicting influences must be at work."

"We have, on the one hand, a small body of pioneers to whom the advantages of front wheel brakes appeal with such force as to make them determined to realize the merits of the system on their own cars. On the other side stand the great body of

constructors, who may be broadly divided into two classes—those whose business policy is to follow rather than to lead, and those whose reputations demand that they should have the best, but who honestly consider that front wheel brakes possess inherent disadvantages that overrule anything that can be said in their favor."

Reflecting the actual experience some of those who have driven cars equipped in this manner sufficiently to be well able to judge of the true merits of the system, a writer in the *Autocar* tritely expresses the opinion that they "have come to stay." This expert, who claims to have driven a car equipped with front wheel brakes no less than 15,000 miles during the past year, further expresses the enthusiastic opinion that "as their merits are recognized, their popularity will increase until the countershaft brake is altogether displaced," and he further ventures the prediction that the example of those concerns that already have adopted the system "will be followed by a very large number, if not the majority, in the course of the next year or so."

Answering the objections of some motorists that front wheel brakes have proved unsatisfactory through their liability to get out of adjustment, the same individual states that he has not found this to be the case, and is of the opinion that with proper care they are fully as reliable as brakes of the rear wheel or countershaft type. "For my own part," he says, "averaging 100 to 120 miles a day, I find that once a fortnight at the most my brakes need adjustment; I depend entirely on my front wheel brakes, because the other brake gives far less control over the car. But I oil the rocking arms, parts and levers every day, and the man who uses an oil can judiciously will never experience trouble with front wheel brakes. If oil be not used and the brake joints become rusty, then, of course, trouble will be experienced."

"One factor above all others," he thinks, "is making for the popularity of the front wheel brake; that is the immense saving in wear and tear on the tires. It is impossible to overestimate the advantages of front wheel braking in this direction, and the extra first cost of a car fitted with brakes of this description is more than repaid by the increased life of the tires. Front wheel braking is universally admitted to be the only real solution of the side-slip problem, obviating the necessity to a large extent for fitting costly steel-studded tires. In my experience tire mileage when the steel-studded variety are fitted is increased by something like 50 per cent."

Turning to the theoretical considerations involved in the principle of front braking, the *Automotor Journal* has the following to say:

"Front wheel brakes, inasmuch as this implies that the car has brakes on all four wheels, give a greater, possibly twice as great, retarding force that can be obtained from a car having brakes only on the back wheels. This is due to the fact that the retarding force is a function of the weight of the car, and that the part of the weight supported by the front wheels is ordinarily useless to assist in pulling up the car, although it is always active in making it more difficult to stop. When brakes are applied to every point at which the load is supported, then full advantage is taken of all the braking force available. For the same reason a railway train has brakes on the wheels of the coaches as well as on those of the locomotive."

"The next advantage of front wheel brakes is that they do not tend to aggravate side-slipping when applied while the car is being driven over greasy roads, whereas brakes on the rear wheels are notoriously bad in this respect. The reason for this difference is one that most people find a great difficulty in appreciating, and perhaps the best way of satisfying the mind on this problem is to make a little model chassis supported on two wheels and two legs. Placing such a model on a smooth board, tilted up at a sufficient angle to enable the model to run down hill, is all that is necessary to make the experiment. When the model is started wheels first it will seldom run straight, and will often turn completely round before it gets to the bottom of the slope. When started legs first, however, it will always continue a straight course in the direction of its original path. It is sufficiently obvious that the legs of the said model are equivalent to a pair of wheels locked by the brakes; when the model proceeds legs first it has front wheel brakes. The point to be observed about the behavior of this model is that the legs always continue to travel in the direction in which they are started, whether they happen to be in front or behind the wheels. In the first experiment it is the wheels that deviate from their true path; the legs, taken as a whole, go straight on. In a real motor car the state thus represented is side-slip. The rear wheels are supposed to be locked by the brakes on a greasy road, and the back part of the car tries to travel straight on under the impulse of its original momentum. . . . When the brakes are on the front wheels the front wheels go

straight on in the direction of the momentum of the car as a whole at the instant the wheels cease to revolve. On a straight road it may be presumed that this direction is more or less straight ahead—that is to say, the car as a whole will continue to travel a fairly true course down the road. A more important detail, however, is that the car continues to travel bonnet first because the rear wheels being still free to revolve, find their natural path in trailing after the front wheels."

Respecting some of the disadvantages of the system, the same authority continues:

"There is only one feature that is sufficiently disadvantageous in principle to lead many leading firms to disapprove of front wheel brakes, as such, quite apart from the pros and cons of their mechanical details. This disadvantage in question is, curiously enough, intimately associated with the second of the above-mentioned advantages. In the foregoing explanation of why front wheel brakes do not aggravate side slip, it will be remembered that we explained that any wheels when locked continue to go straight on in the line of their original momentum. This applies to front wheels equally well with the back wheels; in other words, the car loses steering power when the front wheels are locked, and if the front wheels are locked when an attempt is being made to negotiate a corner, the result is very likely to be disastrous. . . . It has sometimes been remarked that the skilful driver would meet this difficulty by temporarily releasing the brakes, and we have no doubt that a skilful driver would get his car out of danger by this means many times where another would fail, but the fact remains that the disadvantage in question constitutes a principle to which many of the leading automobile firms are at present most strongly opposed."

In developing the system numerous difficulties have been encountered, one mentioned in particular by this authority being the fact that no two brakes ever grip quite alike. This difficulty, he remarks, "has, of course, always been known as true in connection with rear-wheel brakes, and is the reason for the use of the so-called compensating mechanism which does not compensate at all for this particular trouble, although it may for other reasons be very useful."

"In frontwheel brakes the effect of the difference between the retarding force on one wheel and that on the other is more marked than in the case of back-wheel brakes, because the difference in question reacts upon the steering gear of the car and tends to upset the steering. In bad cases this can be exceedingly unpleasant and even dangerous in the hands of an incompetent driver, but it is not difficult to reduce the effect so that it is at any rate not seriously inconvenient."

"The principle method of doing this is to

adopt what is commonly known as center point or pivotal steering, a practice which has otherwise much to commend it whether front-wheel brakes are fitted or not. This consists of splaying the steering pivots, or splaying the road wheels, or splaying both members together, so that the axis of the steering pivot intersects the tire at its point of contact with the road. The wheel then occupies a plane that is tangential to the surface of an imaginary cone, of which the steering purposes, it merely turns upon its point of contact with the road, and does not roll round into a new position as is the case when the steering pivot and the wheel occupy parallel planes. The result of adopting this method of mounting the wheels is that the leverage between the point of contact with the road and the axis of the steering pivot is abolished, consequently the reactions from the road on the wheel cannot theoretically affect the steering of the car. In practice, however, it seems to be very difficult to eliminate this effect entirely by this means, though whether this is due to any inherent difficulty in getting an exact center point steering, or whether it is due to some other cause that is not yet properly appreciated, we are for the moment unable to say; the fact remains that this particular solution has not given entire satisfaction."

"There is, however, an alternative method of eliminating this leverage of reaction, and that is to mount the steering pivot itself right inside the hub of the wheel so that the steering pivot and the tire actually occupy the same plane. In this case there can be no doubt about the leverage being abolished, but this particular solution is also associated with one or two very interesting problems of its own. Thus, for example, it involves reversing the usual method of mounting the wheel, inasmuch as the wheel hub has to be fitted with the stub axle, while the member that is usually a stub axle is now a hollow tubular box into which the stub axle projection from the wheel is carried. The bearing box is carried by a steering pivot arranged tangentially to it. It will be observed, therefore, that the steering pivot and the axis of the wheel, although still at right angles, are no longer in the same plane."

"Another point to be observed is that this particular method of mounting the wheel does not lend itself very well to the use of artillery wheels because the center portion of the wheel is entirely cut away, and the spokes are only joined to the hub by the outside plate of the housing. In a wire wheel this point of weakness can be bridged by carrying the outside spokes right down to the hub cap itself, and there is no apparent reason why a wire wheel should not be made as strong in this form as any other."

Another question that has proved of considerable importance in connection with the mounting of front wheel brakes is that

of the additional strain upon the axle which they impose. As a recent contributor to the columns of the *Autocar* expresses it:

"On applying the brakes the wheels try to stop and the chassis tries to go on, with the consequent tendency to bend the axles backward in the horizontal plane between the swivels and the spring seats, and also with a tendency to twist the axles due to torsion set up by the brake shoes, on being applied, trying to hold the wheels to the axle. Front axles on cars fitted with front wheel brakes must therefore be designed in point of strength quite differently from the axles of those cars which are not (to their sorrow be it!) fitted with a modern device so greatly adding both to the pleasure and safety of motoring."

In conclusion, "the most important consideration of all, from the point of view of mechanical detail," again quoting the *Automotor Journal*, "is the manner in which provision is made for compensating the brake mechanism against interference from the flexibility of the front springs."

"It will be obvious that the brakes have to be actually applied from some point fixed to the frame, whereas the brakes themselves are carried on the road wheels, and are consequently always changing their position relative to the frame, due to the flexibility of the suspension. This is, of course, especially marked on uneven roads, and unless means are taken to provide against this rise and fall of the axle there is quite a liability for the brakes to jam themselves hard on or else to cause the brake pedal to reflect the jerky motion. . . . The point that will be found common to all front wheel brakes, and one that is as much a necessity in their successful operation as pivotal steering, is the actual control of the brake shoes from a point that is concentric with the axis of the steering pivot. From no other point but this can the brakes be properly operated for every position of the road wheels while steering, because even if the connection between the two members is maintained throughout the whole steering lock from any other point of application such an arrangement would almost necessarily result in a varying leverage, and consequently in an unsteady braking effect."

#### When Car Doors Commence to Rattle.

The slamming of automobile doors is a general practice which is prolific of many of the rattles which are prone to develop after a car has been in use for any considerable length of time. Most doors are arranged so as to close against small rubber buffers, which, from continually being hammered by the slamming of the doors, are flattened to a certain extent, allowing a fraction of an inch play at the catch. The slight rattle which results hardly would be apparent were it not for the sounding board effect of the body. There is one way to stop rattling, i. e., put in new pieces of rubber.

## PANHARD'S USE OF KNIGHT MOTOR

How Famous French Makers Employ Sliding Valve Principle—New Idea in Pump and Magneto Drive.

Some measure of renewed interest in the Knight type of engine, sometimes called valveless, has been inspired by reason of its recent adoption as a standard product by several well-known makers independent of the Daimler Motor Co., of Coventry, England, which was the first company to stand sponsor for the American inventor's system after he left this country. Among the new adherents perhaps none is better

The transmission and clutch also are lubricated from the same source of supply by means of the force pump.

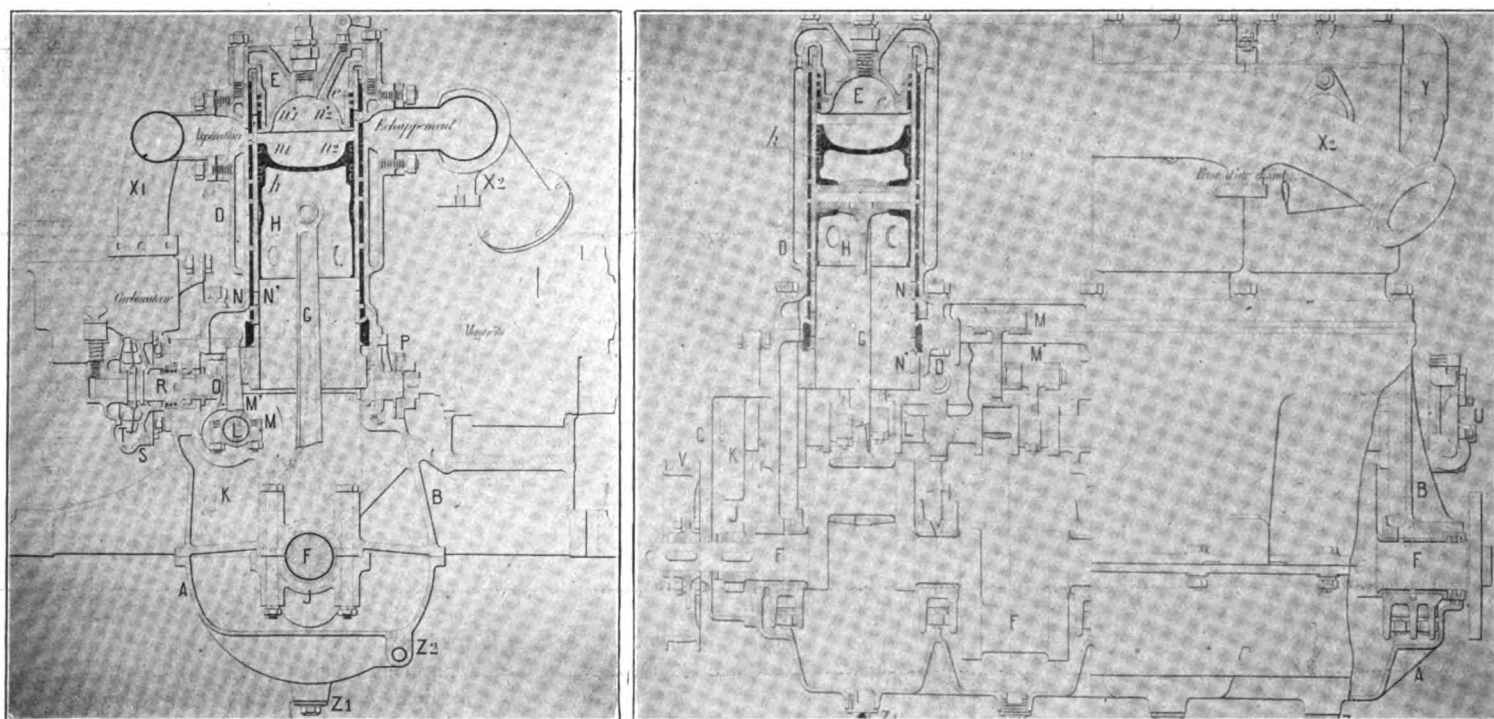
For those who are not familiar with the Knight method of construction the accompanying illustrations will be of assistance. The general details of the lower part of the engine, the oil-pan, A, the main base, B, and the lower portion of the cylinders, D, are not materially different from those of the standard type of engine. The piston head, H, however, is cup shaped, as is the cylinder head, E, a spherical combustion chamber thus being formed.

Surrounding the piston, H, within the cylinder, D, are two cylindrical sleeves, N, N', which are a close running fit between the piston and cylinder and ex-

X2, once in every four strokes of the piston.

Special details of the system which are noteworthy as well as essential to its success are the construction of the cylinder head, the oiling distributing system, and also the arrangement of the auxiliaries. The head casting, E, which is removable, is so formed as to project some distance into the cylinder, thus forming a guide for the upper ends of the sleeves and also affording means for preventing the leakage of gas around the ends of the sleeves and into the ports. To assist in sealing the upper end of the cylinder the cylinder head is fitted with three packing rings, e.

The details of the oiling system can be seen to better advantage in the illustrations



END AND SIDE VIEWS OF KNIGHT-PANHARD ENGINE SHOWING ARRANGEMENT OF VALVES AND VALVE GEAR

known than the firm of Panhard & Levasor, which until its adoption of the Knight motor under license from the inventor was reckoned one of the most conservative concerns in the French branch of the automobile industry.

Although the establishment of the Panhard license was announced more than a year ago, it was not until the recent Olympia show, in London, that the first of the new cars made its appearance at a motor car exhibition. The same model, which is rated at 30 horsepower now is announced by the New York branch. The cylinder dimensions are 100 by 140 millimeters, or 4 by 5½ inches. The four cylinders are cast separately and in most respects the construction follows the plan of the Knight-Daimler engine pretty closely. One point of difference is in the oil circulation, which is accomplished by means of a force pump, with sight feed on the dash.

tend practically the full length of the latter. Each sleeve is provided with a rectangular port on each side. The ports n'1 and n'2, in the inner sleeve being equidistant from the end of the sleeve, while the ports n1 and n2, in the outer sleeve are spaced at different distances from the end. By means of heavy lugs, cast at the bases of the sleeves, and short connecting rods the sleeves are connected with the valve motion shaft, L. The arrangement can be seen at M, M', in both side and end sectional views of the motor. The cranks driving the two sleeves are placed at such an angle to each other and the position of the shaft with respect to the crank shaft is such that the two sleeve ports n1 and n'1 register opposite the inlet port from the carburetter, X1, once in every four strokes of the piston, while the exhaust ports in the sleeves, n2 and n'2, also register with the exhaust port leading to the manifold,

showing the individual parts. The outer and inner sleeves, here indicated at D and C, respectively, have helical grooves turned in their exterior surfaces. They also are drilled through at various points, as at 1, while the piston, P, has a number of large holes bored in its lower portion. The result is that as the sleeves move up and down over the very short travel prescribed by the connecting rods, K, L, the oil which is supplied by the splash of the cranks constantly is circulated between the sleeves, the cylinder walls and the piston. The general construction of the valve gear, as well as the respective forms of the cylinder head and the sleeves, are plainly shown in this illustration.

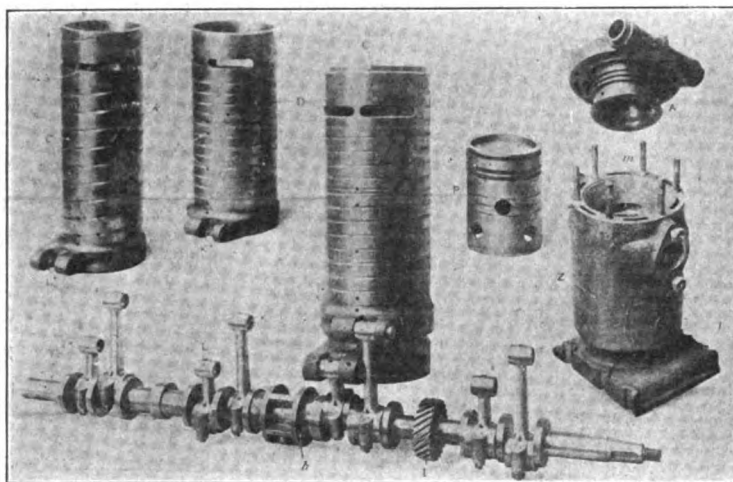
The valve gear is driven from the crank shaft by means of a silent chain, this being one of the novel features of the Knight construction, though one which also is coming into use abroad in motors of the

more conventional form. The water pump and magneto, contrary to ordinary practice, are driven from a special cross shaft, which derives its motion from the valve actuating shaft by means of spiral gears. In common with Panhard practice of several years' standing, the timing of the magneto is accomplished by swinging the apparatus bodily around its armature, instead of altering the relation of the armature with respect to the position of the crank shaft.

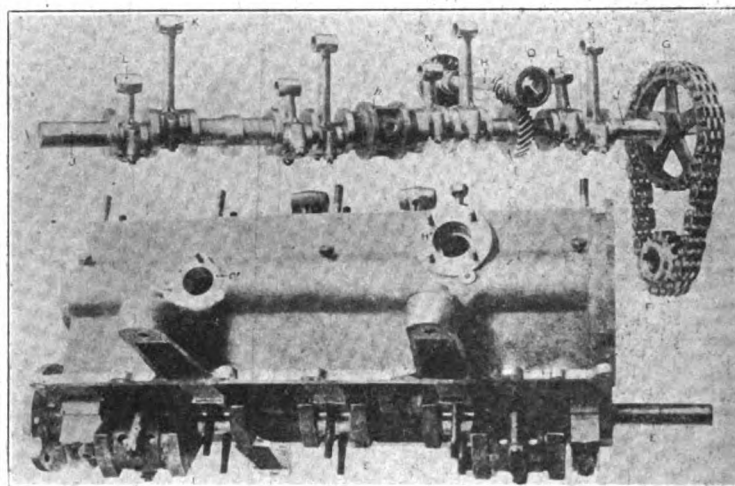
Although the motor is rated at 30 horsepower its maximum power output under test is said to run as high as 41.5 horsepower, at 1,300 revolutions per minute; the power at lower speeds ranging upward from 23.75, at 700 revolutions, to 33.5, at 1,000. A standard Panhard motor of the poppet valve type having the same bore

Mail service," and is designed to save time in foreign correspondence. At present a letter destined to London requires as much time to cross the continent as the passage across the ocean; or a manufacturer writing to Japan must mail the letter a week before the steamer sails from San Francisco or Vancouver. The Western Union Telegraph Co. has arranged for the use of its night letter and other telegraphic service in connection with outgoing ocean mails, so that this week of trans-continental time may be saved. Its New York office will receive telegrams from any part of the country destined for European addresses and will forward them in a sealed, especially addressed envelope by the first outgoing Atlantic steamship mail. The same plan will be followed in San Francisco, Seattle and Vancouver

Algeciras, which is across the bay from Gibraltar. The distance is 58 miles and roads fairly good but, with several hills, one with a grade of 16 per cent. Four or five cars will be used at first, not steamers, of 25 horsepower, to carry 10 passengers with at least 50 pounds of baggage each, and able to run the distance in four and a half hours, or about 15 miles an hour; and their price must not exceed \$3,500, including duty. The Consul had several interviews with the man in an endeavor to persuade him to purchase an American car instead of the Spanish-Swiss which he spoke of buying. His answer was that it was doubtful if the cars could be made in the United States and delivered here in time; but even if they could, he feared that an American car could not be used because, in case of breakage, it



SLEEVE VALVES AND GEAR OF KNIGHT-PANHARD MOTOR



UPPER PART OF CRANK CASE AND VALVE GEAR

but with only 130 millimeter stroke, instead of 140, is said to produce 19.0 horsepower at 700 revolutions, 25.75 at 1,000, and 39.75 at 1,300.

The general details of the new car follow closely the standards applied to the 35 horsepower six cylinder Panhard car. Multiple disc clutch, four speed change gear, semi-elliptical front springs and three-quarter elliptic rear and equalized rear wheel brakes, applied by means of thin steel ribbons, are familiar features. The chassis is made in two lengths of wheel base, namely 115 and 125 inches, according to body requirements, while an option also is furnished in the matter of final drive; either the propeller shaft or double chain systems being supplied, according to specification.

#### Letter-Telegrams for Foreign Mails.

Foreign mail wire service is an innovation in telegraphing which probably will prove almost as great a convenience as the recently instituted night-letter system, and now that the automobile export trade has attained huge proportions the service is of interest to automobile manufacturers as well as to the public in general. The innovation is to be styled the "Special Ocean

Mail service," and is designed to save time in foreign correspondence. At present a letter destined to London requires as much time to cross the continent as the passage across the ocean; or a manufacturer writing to Japan must mail the letter a week before the steamer sails from San Francisco or Vancouver.

This will enable correspondence to be dispatched from any part of the United States for an ocean mail within a few hours of sailing time. The only charge, in addition to the usual telegraph tolls to the ocean mail port, will be 5 cents for postage. Telegrams should bear the full mail address of the foreign correspondent for whom they are intended and marked "Care Ocean Mail, New York," or San Francisco, Seattle or Vancouver, as the case may be. No charge will be made for the address.

#### American Consuls' Lack of Knowledge.

Although the American Consul at Juarez, Spain, reports that there are 22 automobiles and two agents in that city of 50,000 inhabitants, he adds that there are "no stores where automobiles may be purchased," and that "it would not pay to have one." Both of the agents handle foreign cars, but are willing to represent American cars also; in fact, one of them, who understands the English language, is about to establish an automobile passenger service between San Fernando, a few miles from Juarez, and

would be impossible to wait for duplicate parts which must necessarily come from America.

Inquiries were made at once of the American consulates in Madrid, Barcelona, Paris and London as to whether any American automobile manufacturers had offices in Europe, and, although there are such offices or agencies in both London and Paris, the American Consular representatives are so poorly posted or so slightly interested in matters pertaining to the automobile situation that they could not supply the information.

#### Cars that are Called for in Scotland.

As indicating the spread in Great Britain of the demand for cars of medium power and price, United States Consul W. Stanley Hollis, at Dundee, Scotland, reports a preference in his district for cars of about 20 horsepower, selling at from \$1,500 to \$2,000 retail. While there is some local business, many purchasers prefer to go to London when seeking a new car, in order to get the benefit of the greater variety and also the possibility of picking up "bargains." There are at present 2,823 motor cars in the Dundee district, 37 motor trucks and 797 motorcycles.



**MOTOR TRUCK FROM MILWAUKEE**

**Double Friction Transmission a Conspicuous Feature—Large Wheels and Other Characteristics of the Utility.**

Milwaukee, famous for kegged products, for the transportation of which large trucks are desirable, has reason to believe that some of the fame will be shared by the "Utility" motor truck, the manufacture of which has been undertaken in the Wisconsin city by the Stephenson Motor Car Co. It is built in one and three ton sizes, the mechanical details of each being practically identical, the transmission of the

Forty per cent. carbon steel is used in the crankshaft and connecting rods, and the bearings are of Parsons white brass.

Cast in a single aluminum piece, the upper half of the crank case is light and at the same time very rigid, being reinforced by cross ribs. Box type supporting arms are cast integral, and contain breathers, the openings being protected by a knurled nut with a fine wire gauze cover. The lower half, also of aluminum, is bolted to the upper half, and contains the oil reservoir, with a drain cock in the bottom.

The motor is lubricated by means of a gear pump located on the outside of the lower half of the crank case. This pump forces the oil to a main duct cast integral with the case, from which it is distributed

the usual flywheel. These are connected by a forged shaft directly to the rear flange of the crankshaft of the motor. Both friction wheels run on roller bearings, and slide on ground and polished jack shafts by means of two arms operated in unison by the change speed lever. By the operation of the foot pedal one friction wheel is moved forward against the front driven disc and simultaneously the other is pressed against the rear disc, whereby both rear wheels are rotated in the same direction. To reverse the car, another foot pedal reverses the action of the friction wheels. All end thrust is distributed by the center equalizing bearing. As each friction wheel drives its respective road wheel, either wheel will pull the entire load independently should any occasion require. The drive is by side chains to the rear wheels.

Large wheels are employed; those on the one ton car are 40 inches and on the three ton car 42 inches in diameter. Solid rubber tires three and five inches in diameter equip the smaller and larger sizes respectively.

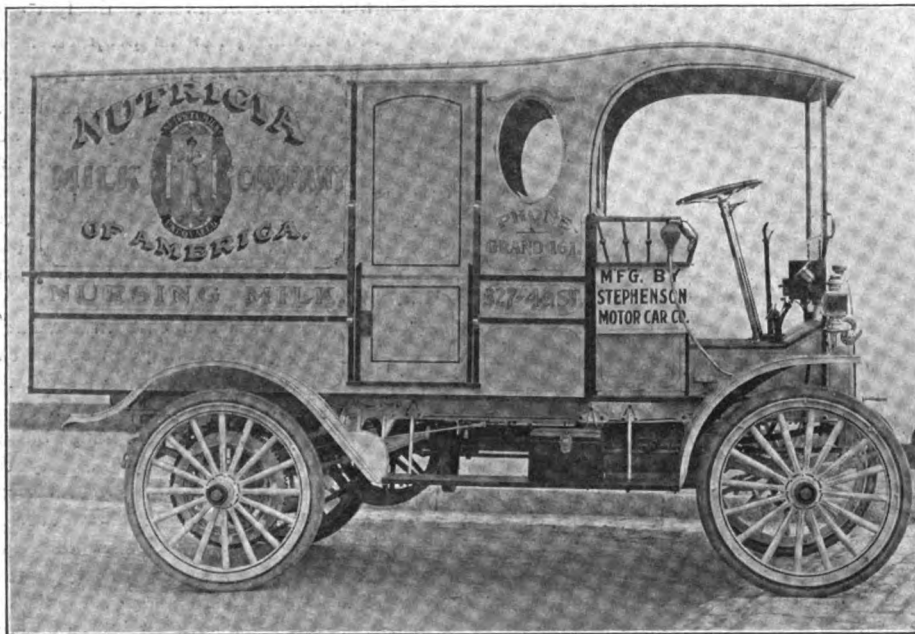
The brakes of the one ton car are internal expanding, 17¼ inches in diameter, with a 2½ inch face, and those of the three ton, internal, 20 x 4 inches.

Semi-elliptic springs are used in front, with a ¾ platform arrangement in the rear. A gear and segment type, 18 inches, and a screw type, 22 inches, are the steering wheels used on the two models respectively.

The one ton truck has a wheelbase of 110 inches, a body 108 inches in length, and it is capable of from 3 to 25 miles an hour. The wheelbase of the three ton truck is 136 inches, the body is 168 inches in length and the speed from 3 to 25 miles an hour.

**Premier Catalog Shows "Car of Quality."**

Dressed in gray and green, the new catalog of the Premier Motor Mfg. Co., Indianapolis, Ind., presents the case of the Premier cars in attractive fashion. The introduction, dealing with the policy to pursue when purchasing automobiles, is followed by full page photographic reproductions showing "The Car of Quality" in several body styles and two sizes of chassis—the 4-40 and the 6-60. These are supplemented by a number of large views of the motors and other partly assembled parts which make an especially interesting exhibit. Few alterations in the manufacture of these cars are noticeable, and except for a general refinement of design and such minor changes as have been suggested by experience, they remain the same as their predecessors. Conforming with an evident preference for the enclosed style of body, the touring cars and runabouts are so equipped, though the popular styles of open cars also are supplied. The catalog closes with an attractive layout of several views of the Premier car and some of the roads encountered during the 1910 Glidden tour.



UTILITY 45-50 HORSEPOWER THREE TON MOTOR TRUCK

double friction type, standing out as the most conspicuous feature of the truck's construction. Bodies are built to meet the varying demands.

A conventional "T" head type of motor with 4 cylinders, 4½ x 5 inches, and developing 30-35 horsepower, furnishes power for the one ton truck, while the three ton car is equipped with an engine of four cylinders, 4¾ x 5½ inches, which gives 45-50 horsepower. The magneto, carburetter and inlet are on the right hand side of the motor, with the exhaust and gear pumps on the left side. The placing of the valves on opposite sides is asserted to be a desirable feature in that their size is not limited because of restricted space. The "T" head is symmetrical, making a well balanced motor.

The cylinders are cast in pairs, with the water jackets cast integral and the cylinder heads reinforced by cross ribs. Each pair of cylinders is surmounted by a polished bronze head, which is detachable to facilitate the cleaning of the water jackets.

by means of copper tubes to the main bearings; then it flows through the hollow crankshaft to the big and small end bearings of the connecting rods. The pistons and cam shaft are provided with oil pockets and are fed by splash. On the exhaust side of the motor, an oil gauge indicates, by means of a float and a ball, the amount of oil in the case. The gauge is marked and when the oil is kept at this indicated level the makers claim that neither can the bearings burn out, nor can the motor emit smoke.

Ignition is furnished by a Splitdorf high tension magneto, and by plugs of the same manufacture.

Cooling of the motor is accomplished by water circulated by means of a bronze water pump. It is bolted on the crankcase and driven by a bevel gear from the cam shaft. A forced draught of air is maintained by means of a ball bearing fan, the blades of which are aluminum.

The double friction transmission employs two driven disks which take the place of

## ABOUT THAT "SOLID GASOLENE"

**Proves Not to be All that Fancy Pictured—What It is and How It May be Used—Some Day.**

Highly colored brain-pictures born of recently cabled reports of the advent abroad of a new form of "solidified petrol," or gasolene, and which induced visions of the motorist of the future carrying the fuel about in his pocket in chunks and which he could chuck into the carburetter whenever he wanted a little more speed from his car, will have to be toned down. For while there is a certain basis of fact in the reports, the project is not quite so rosy as it has been made appear. The so-called solid fuel in reality is a gelatinous substance in which gasolene, or any other petroleum distillate, is held in suspension after being subjected to a secret process. The fuel is vaporized in a special form of carburetter working on the general principle of the old-fashioned surface mixer, and besides offering certain advantages in economy is advocated chiefly for the additional safety which its use is said to involve.

According to English advices, the "solid" fuel is manufactured by adding  $1\frac{3}{4}$  per cent. of "steatite"—or more probably some compound of stearic acid bearing a similar name, not the mineral steatite—and alcohol to the fuel by a process which has been perfected by a Roumanian inventor. The resulting compound is described as a "stiff, white jelly, offering but little odor," in which the fuel is held in suspension in very minute cells. The fuel itself may be recovered by subjecting the jelly to pressure, though the commercial method employed in connection with motor vehicles is that of evaporation, as already indicated. In order to prevent loss, it is necessary to preserve the fuel in sealed tins, though such containers present no danger from leakage, such as may occur with liquid fuel. The use of the processed fuel is claimed to result in an economy of about 30 per cent. as compared with ordinary gasolene, while the cost of rendering it is about three cents per gallon.

### Spring that Eliminates Shackles.

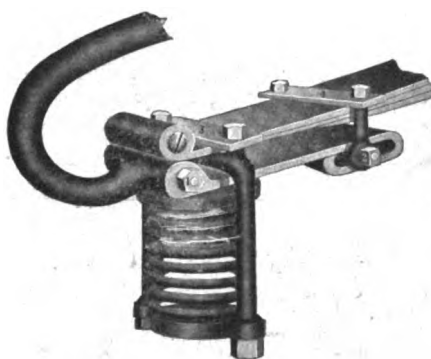
As its contribution to the unceasing effort to add to the comfort of motoring, the Thomas Auxiliary Spring Works, Canistota, N. Y., is offering to the trade and public the Thomas auxiliary spring, shown by the illustration. While in some respects the device suggests other forms of supplementary springs, the Thomas invention is novel in that the usual spring shackles are eliminated by its use.

The spring proper is of steel, of the more or less familiar helical type. Six feet of

steel are used in the construction of the coil. It is claimed by the makers that this form of spring minimizes the vibration before it reaches the top, and that more jar is absorbed with less motion of the body than by the use of any other forms of springs.

As the illustration shows, the regular top leaf spring has the shackles removed. The feature of the spring is that the body hanger is bolted to the lever over the coil spring; the leaves are clipped together near the eye, also further in on the spring at the slotted hanger, this slot in the lever allowing for all elongation and take up, and does away with loose shackles.

It is also claimed for this auxiliary spring that no side sway is possible because



the hanger holding the coil is clipped firmly to the leaf springs; it cannot get out of shape because of its firm attachment; it absorbs the jar going down so that there is not as much reaction of upthrow; and that breakage is eliminated to a great extent.

### Hupp Expedition Now on the Ocean.

Joseph R. Drake, Thomas M. Hanlow and Tom Jones, who constitute the Hupmobile "export expedition" which left Detroit on November 3d, reached San Francisco on Monday last, 12th inst. Both the men and the Hupmobile touring car, in which they made the long, strenuous journey over plain, desert and mountain, were in prime condition and were accorded a hearty reception. Monday night the sturdy car was loaded into the hold of the steamship Manchuria and the next day the little party went aboard and now are nearing Honolulu, where their real missionary work will begin. After introducing and demonstrating the car in Hawaii, the "expedition" will set sail for the Fiji Islands, New Zealand and Australia, whence the way homeward will be traced via Europe.

### Where Not to Stop in Winter.

During the winter months particularly it is a bad practice to leave a car standing in a pool of water or a mud puddle. The fact that the water or mud may freeze to the tires and cause damage to them when the car is restarted never occurs to some motorists.

## RUSSIA A PROMISING MARKET

**Demand Likely to Develop into Generous Proportions, Says Consul Comer—Odd Objection to Vanadium Steel.**

In reporting that the Russian War Department is a large purchaser of automobiles for military use, Jacob E. Comer, American Consul at St. Petersburg, suggests that American manufacturers probably would find it very useful to have permanent agencies in Russia. Not only is the Government buying from time to time, but, Mr. Comer believes, the demands of private parties would more than justify such establishments.

"The automobile business is likely to develop into rather generous proportions in Russia," he says, "for two reasons: First, the fuel is cheaper and more plentiful than in any other European country; and, second, owing to the relative dearth of railways there is a need for other forms of communication between cities and villages, for postal and general transportation purposes, which automobiles are best adapted to fill.

"The sale of American cars in Russia is impeded by the general disposition in this country to consider American machines lighter, cheaper and less durable than those of European make; and this may be attributed to the fact that thus far only the lighter and less expensive of the American makes have been much in evidence here. A strong and heavy machine, able to stand usage upon difficult roads is the type that would meet with greatest success in the Russian market. The employment of vanadium steel by American automobile builders is a further handicap on their machines in Russia, since this variety of steel is almost unknown and untried in this country."

### Damage Possible to Deflated Tires.

When running with deflated tires on the rims, it goes without saying that there is danger of damaging the tire. In this condition the rubber is very soft and pliable and almost anything in the road with a point or edge sharp enough to penetrate the casing will attach itself to the tire. A recent example of injury possible to tires in this condition was shown when a deflated tire picked up a railroad spike.

### Annoying Rattle Caused by Muffler.

After a great deal of speculation as to its location, a very annoying rattle finally was found to be in the muffler. It was located by stopping the engine while coasting down a hill, the rattle ceasing immediately the engine was stopped. An investigation showed that some of the rivets holding a baffle plate in the muffler had dropped out allowing the plate to rattle.

## BUSES BUILT FOR RURAL USE

**Special Requirements Developing Distinct Type to Carry Passengers and Baggage—One Maker Meets the Demand.**

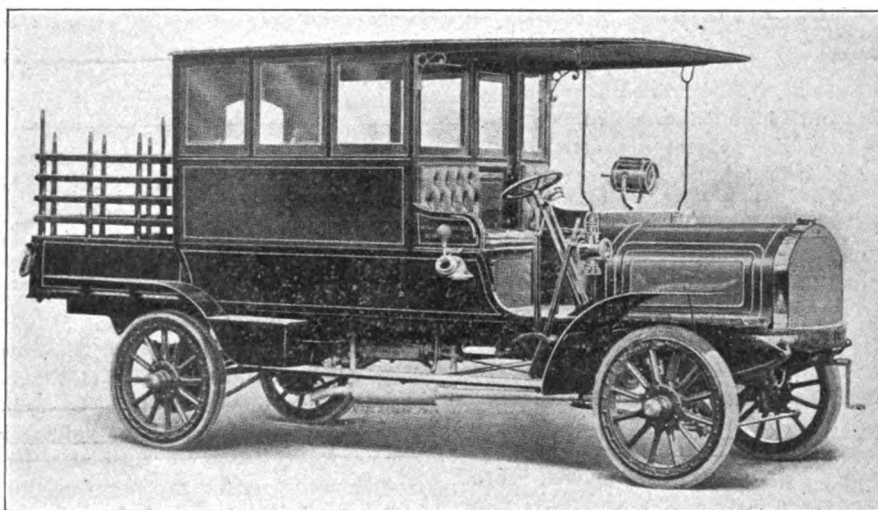
That the motor bus rapidly is supplanting the horse drawn vehicle on rural stage routes and bringing about the establishment of many new and longer routes, quickly is made apparent to all who leave the main lines of railroad travel, but comparatively few persons are aware of the types of vehicle which the new or sharpened demand has developed.

In order to be the best adapted to this

miles per hour, which is normal, although on good roads it will run 20 miles an hour. The wheelbase is 138 inches and the tread 68 inches. The tires are solid, 36 x 4½ in front, single, and 36 x 3½, twin, in the rear. The weight of the car is 6,500 pounds.

### How to Start Easily on the Magneto.

Though easy starting with the magneto depends to a certain extent on the adjustment of the carburetter, the secret usually is in having the proper sized gaps at the spark plugs. Any motor may be so adjusted that it can be started on the magneto. The fact that it will start without the assistance of the battery shows that it is more perfectly adjusted than when the battery is relied on and therefore is



MACK COMBINED PASSENGER AND BAGGAGE STAGE FOR RURAL LINES

work the rural bus must necessarily combine passenger and baggage carrying ability, and have separate compartments for each, and most of them combine these features, a good example of the sort being the bus here illustrated, which is manufactured by the Mack Bros. Motor Car Co., Allentown, Pa.

This bus is controlled from the right hand side, the entrance into the body, proper being at the center, between the driver's and the other front seat, and the platform entrance on the left. The seats inside are arranged longitudinally or crosswise, and, in cases where it is more desirable, the driving position is changed over to the left hand side, to allow the passengers to enter the platform from the right side. In the rear is a baggage rack with a loading space 48 x 60 inches. The size of the car is varied, to meet the requirements, from six to twelve passenger capacity and from 500 to 3,000 pounds freight carrying capacity.

The motor is a four cylinder, four cycle, vertical type, with cylinders 5½ x 6 inches, cast in pairs. The valves are located on one side. When the motor is running at 800 revolutions the speed of the car is 15

evidence that it will run more smoothly and powerfully when on the road where the magneto forms the source of ignition. A magneto wrench usually will be found in the tool equipment which accompanies new cars, and on this wrench there will be found a gauge for setting the auxiliary spark gap on the magneto. When this gauge is available the spark plug gaps should be adjusted to exactly this size, care being taken to see that all are precisely alike. If no gauge is included in the tool kit, adjust the gaps to 1-64 inch—no more, no less. If the throttle then is opened about one-quarter and the spark lever advanced to that point which previous experience has proven to be productive of the best results on level roads, the motor will start if it is "spun" over once or twice. The spark should not be retarded as is the case when starting with batteries, but should take place as nearly at the top of the stroke as possible in order to get the maximum efficiency of the magneto. A back kick need not be feared, as this danger is extremely rare when a magneto is used for starting, because by the time an explosion occurs enough energy will have been stored in the flywheel to offset this.

## CONCERNING COOLING SYSTEMS

**Advantages and Disadvantages Peculiar to Those in Vogue—How the Car Manufacturers Show Their Preference.**

There are advantages and disadvantages in both the thermo-syphon and the pump circulation of water in a motor, and, though to many manufacturers the former has features which make it more desirable to them for effecting the engine's cooling, the latter system has many adherents because of the points in its favor.

One of the first objections, if it may be so termed, to the thermo-syphon system is that it requires a slightly larger radiator, employing larger pipes, and connections, but as these constitute but a small item of first design and construction, its other points, and the fact that it requires practically no attention thereafter, renders the other consideration of small moment.

Thermo-syphon cooling generally is considered more efficient than cooling by pump, in a motor doing heavy duty, because while the pump causes the water to circulate at a speed in proportion to that of the motor, in the thermal, or gravity, system the rate of the flow of water is dependent upon the amount of heat generated by the motor. Maximum heat conditions prevail when a motor is laboring hard, as on a hill or under adverse running conditions, with the throttle wide open and the spark somewhat retarded, and, on such occasions, the water circulates much faster by the thermo-syphon system than with the use of the pump.

When a motor equipped with the pump system is stopped after a particularly, or even reasonably, hard run, the water immediately ceases to circulate, and if the stop is not extraordinarily long, the engine is much hotter than when it was stopped at first. In the gravity system the water continues to circulate, and thus cools the engine for the next run. The fact that the thermo-syphon circulation is a physical and not a mechanical system of cooling is another point in its favor.

On the other hand, however, the pump, either gear or centrifugal, is not only more economical to produce but has its advantages, the greatest, probably, that it is positive in action. It often is impossible to obtain other than dirty or muddy water with which to fill the radiator, and the sediment therein is very liable to cause the pipes or connections to become clogged. The positive circulation forces such water, and even dirt or small chips, through the pipes without stopping up the passages. The formation of air locks or steam pockets is an ordinary occurrence in radiators or pipes, but the forced flow of water by

pumps obviates all danger that might otherwise be caused by such obstructions.

Because neither the thermal nor the pump circulation has satisfied certain manufacturers on account of some of the shortcomings found in each system, a compromise of the two has been adopted in several instances. This compromise is a combination of the pump and the gravity principles, the centrifugal type of pump being the mechanical factor. The pump case is made much larger than ordinarily in order to allow the water to flow, whether or not the pump be inactive or rotating but slowly. The feature of this third system is that the water is circulated entirely by the pump until the motor becomes so hot that the water reaches the boiling point, when the thermal or gravity circulation begins to take place. The enlarged case about the pump permits the water to flow past the pump blades faster than they rotate or would circulate it mechanically. Thus the motor is cooled more efficiently than would be the case with the pump alone, and yet the advantages of a pump are retained.

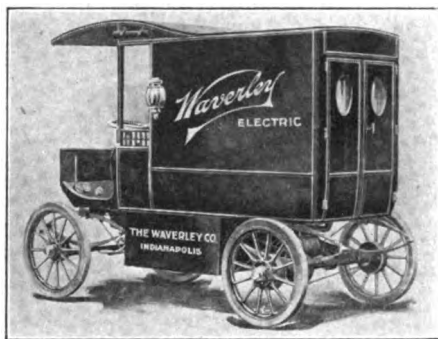
How the cooling systems are viewed by the manufacturers is indicated by a total of 176 makers, representing the better known American cars of whom nearly 58 per cent. prefer the centrifugal pump system of cooling as evidenced by its presence on their product, and 12 per cent. the gear pump, while about 25 per cent. show a preference for the thermo-syphon and 6 per cent. use different systems on their differing models. Numerically they stand, 102 centrifugal, 41 thermo-syphon, 22 gear and 11 employing at least two systems.

#### Delivery Wagon in Compact Form.

With the object of catering to the needs of department stores, dry goods stores, milliners, grocers, laundries, and other classes of business that require a large number of quick deliveries during every business day, the Waverley Co., Indianapolis, Ind., has brought out a new form of delivery wagon, Model 83, which possesses several unusual features. Besides being lighter than many other electrics that are intended for a similar class of work, it is compactly and neatly designed, so that it can be handled readily in close traffic and maneuvered in narrow streets. Its relatively small size, together with its mechanical simplicity, also renders it perfectly adaptable to garaging in the shipping room of its owner, subject almost entirely to the attentions of the driver. Where a charging board is installed at the shipping platform, indeed, the machine may be kept at that point for the greater part of the time, only going to a regular garage occasionally for inspection and regulation.

The novel point about its construction is that it embodies the same form of transmission that is used in the Waverly pleasure cars. This system includes the use of a driving shaft running between the

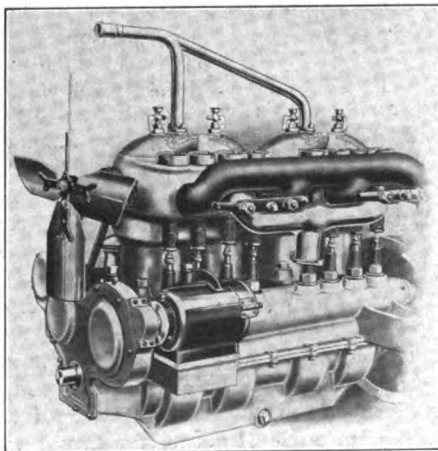
reduction gears and the axle, not longitudinally of the vehicle, in the manner of the conventional propeller shaft, but at an acute angle to the axle. By this arrangement it is possible to bring the motor very close to the axle, thus making a very compact transmission, while ensuring perfect flexibility to the system under the ef-



fects of spring motion. The silence of operation and high degree of efficiency achieved by the system are attributed to the use of herringbone gears.

#### Mounting Dynamo on the Motor.

In order to provide means for mounting and driving generators for independent electric lighting systems which fast are coming into use, several American automobile designers are casting special brackets on engine bases and arranging for direct, positive drive. An instance in point is illustrated by the accompanying picture, which shows a 1911 style Speedwell motor on which is mounted a new Aplco slow speed dynamo, which is driven by the engine gearing. The torpedo car in which the power plant is intended to be installed



is equipped with convertible gas and oil lamps. The action of the lighting system, under the Aplco method or regulation, is entirely automatic regardless of the speed of the engine. The dynamo, which is shown in position, is made by the Apple Electric Co., Dayton, O.

In regard to the method of installing the dynamo on the engine, it will be observed that a special bracket has been cast on the left side of the engine in front, the dynamo

thus occupying a position which has been a general favorite with designers in placing the magneto. It is thus perfectly solid with the engine, is independent of all frame distortion and is kept in absolute alignment at all times. The drive is obtained by adding a special gear to the two-to-one group in front, which actuates the armature directly. As the gear is enclosed in the housing which protects the entire engine gear system it is unaffected by road dirt and dust and adequately lubricated.

#### Book for Draughtsmen and Designers.

One of the indirect benefits resulting from the introduction of the automobile into the curricula of technical institutions is the inevitable production of textbooks designed primarily for students' use, which, by the very nature of their origin and intended purpose are free from the commercial bias that taints so many of the handbooks and compendia that are thrust upon an unsuspecting public. The latest representative of the class of professional textbooks—to adopt a distinguishing term—just has appeared from the press of Longmans, Green and Co., London and New York, and is entitled, "The Practical Design of Motor Cars." The work, which is of 250 pages, demi-8vo., is by James Gunn, lecturer on motor car engineering at the Glasgow and West of Scotland Technical College. In a preface, written by Prof. A. L. Mellanby, D.Sc., it is explained that the volume is the outcome of the latter's work as a lecturer to students of motor car engineering.

The book is designed for the use of draughtsmen and designers, but also is of a sufficiently descriptive character to be of value to others who desire to inform themselves of the general technical requirements of the automobile. The various elements of the standard chassis are taken up in detail and considered from the analytical standpoint and with general, rather than specific, reference to current practice. The work is plentifully illustrated with original line drawings.

#### Telling the Warren-Detroit Story.

The Warren Motor Car Co., Detroit, Mich., has achieved a picturesque effect on the gray cover of its 1911 catalog by an embossed semi-conventional design of an automobile appearing over a rise in a broad road; three large trees tastefully placed lend a sketchy effect to the whole which is further enlightened by the name of the car—Warren-Detroit—which appears in gold. It is the sort of booklet that will delight the heart of the searcher after facts, whether he be an intending purchaser or not. The cuts which are exceptionally clear are tastefully enclosed in pale green borders and portray in addition to the many different parts which go to make up the chassis and motor, seven styles of pleasure cars and one commercial car, a new-comer—the Warren-Detroit delivery car.

## HELP FOR CARS THAT ARE STALLED

Engineering Device Readily Available and Far More Powerful than Block and Tackle—How to Use It.

Though ditches are necessary evils, mud and sand while hardly necessary are nevertheless evils, and all three on more than one occasion have proved the bane of the tourist. Ingenuity on the part of the motorist usually extricates the car, and where this fails he must fall back on the services of a horse or a team of mules.

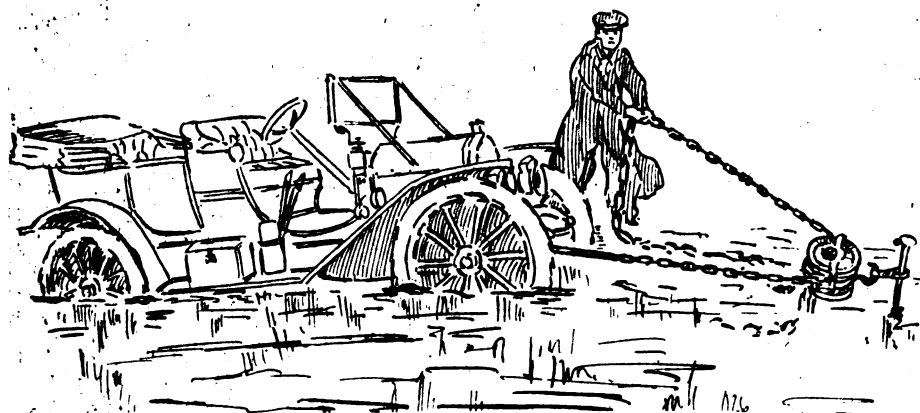
A much better way for the man who tours far or who engages in strenuous contest is to carry and use a Duplex or Triplex block, a mechanism similar to the differential hoist commonly used in engineering

and in recent Glidden and other tours where the device has been used it has proved most valuable.

In addition to this important use on the road the Duplex block, which costs about \$20, and the somewhat more powerful Triplex block, which costs about a third more, can be used in the garage to lift out the motor or other heavy parts or to lift the body from the chassis without the props and underpinning necessary when the ordinary jack is used.

### Winter Warmth for Man and His Food.

"Although the average man is supposed to possess his quota of mother wit, did you ever notice that precious few motorists who suffer numbed fingers or chilled feet ever think of lifting the bonnets of their cars and permitting the heat of their motors to thaw them out?" queried an observant individual as he pointed to a chauff-



VIEW SHOWING HOW DIFFERENTIAL HOIST MAY BE USED ON STALLED CAR

and other work that requires the lifting of heavy weights. This device is a modern improvement on the block and tackle, and is much more compact and powerful. With a Triplex block, weighing about 40 pounds and requiring a comparatively small space in the equipment box, a single man can exert a pull of a ton—more than the effective pull of a team of horses. The Duplex block is slightly smaller and permits a pull equal to two-thirds of that realized with the larger device.

In using either of these blocks to haul a car out of a hole the *modus operandi* is as follows: A small iron bar is driven into the solid ground at a considerable angle and at a distance from the automobile. One end of the larger chain which accompanies the block is attached to the axle of the car and the block is attached to the bar by means of a ring which is slipped over the end. The strain which is put on the smaller chain by the operator is greatly multiplied, through the mechanism of the block, on the large chain, and in this way the car is slowly dragged out of the hole. The bar can be driven, the block hooked up and the car extracted from a deep ditch or hole in a very few minutes, by one man working without any assistance whatever,

four who was "flaying" his body with his hands and stamping the sidewalk with his feet in an effort to quicken circulation. "It is the same lack of wit that causes men to drink cold coffee at this time of the year or to eat cold picnic lunches during the summer when the hot motor supplies a ready means of warming both drink and food. I know one ingenious driver who has rigged a couple of holders inside the bonnet and who thus has warm soup or warm coffee in metal flasks at hand whenever he desires either."

### Skill Required in Replacing Cylinders.

Considerable skill and patience are required when replacing a cylinder over pistons because a great deal of difficulty often is experienced in starting the rings into the bore. If one man can lower the cylinder casting while another works the rings under the edge, little trouble will be experienced, but in cases where there is but one man to do the work, one of the best ways to get the rings in is by placing a piece of soft wire or extra strong cord around them. This will hold them in place until the upper edge slips into the bore, when as a matter of course the wire or cord is cut away.

## MOTORS AS SANITARY MEASURES

How Their Displacement of the Horse Will Assist Public Health—Extent of Horse Haulage.

To eradicate mosquitoes, dig a few ditches in the nearest swamp and pour crude oil on all stagnant water. This simple plan has been evolved and its success demonstrated only after many years of costly experiment and labor. There is an equally simple rule for ridding big cities of an even worse pest. It is: To eradicate the common house fly, substitute motor trucks and pleasure cars for horse drawn vehicles. The author of the rule, if not the originator of the plan, is Charles E. Stone, sales manager of the Alden Sampson Manufacturing Co., Pittsfield, Mass. The same authority recently was quoted to the effect that the substitution of motor vehicles for work horses in New York City alone would effect an annual saving of from \$18,000,000 to \$20,000,000. In the current issue of the *Co-Operator*, he sets forth his ideas concerning "The Freight Automobile and Its Mission" more in detail, and incidentally mentions the utility of the motor wagon as a fly eradicator.

"Up to a few years ago the statement that within a limited time the greater part of the country's merchandise hauling would be done by motor power, not by horses, was regarded in the light of a prophetic utterance, or, at least one in which the wish was parent to the thought," Mr. Stone remarks. "Since then those pioneers who, ever alert for improvement in service and greater economy in up-keep, adopted power transportation, have taught the business community valuable lessons, until even the late skeptic no longer closes his eyes to the certainty that power transportation is the next logical step.

"Horses represent a method of transportation so old that it was in vogue before the Christian era, and it is well that inventive genius has found a means of supplanting them," he continues. "The demands of business, health and humanity are driving us to adopt other methods of transportation, more suitable to the requirements of the twentieth century than that of the Pharaohs. The congestion of the business streets of our great cities is giving us all a great deal to think over—and the conditions on or near piers are even worse.

"A considerable share of the responsibility for the present high cost of living may with a good deal of justice be attributed to the cumbersome and expensive trucking. The cost of trucking in New York City alone amounts to \$156,000,000 annually, without considering the wear upon the pavements and the expense of attempting to keep them clean. There are in New



York City about 130,000 horses and over half of them are used in trucking. Even a partial superseding of the truck horse by the motor would involve a tremendous saving.

"True, in some country districts the horse has an enduring value. But the science of sanitation is confronted by the fact that in cities of this country there are nearly 4,500,000 horses and 200,000 mules. With all possible and reasonable precautions intended to keep the cities sanitary little progress can be made so long as such an army of quadrupeds parade in endless procession up and down the thoroughfares. The clouds of dust which sift above the pavements are not the wholesome earth of the fields, but are filled with germs and lingering death.

"To go further into details, the exit of the horse would mean the disappearance of the house fly, for it would remove its chief breeding source. It is apparent to all who have given study to the congestion of traffic in great cities, that some change in the methods of delivery must be introduced. The horse's board bill amounts to over \$14,500,000 a year in New York City. The 130,000 horses hitched to vehicles in the Empire City add a long and unnecessary line to the traffic parade. Counting eight feet from the dash-board to each horse's head, the animals take up 200 miles of the streets. And if, for example, these horses were all harnessed to the wagons, tandem fashion, 190 miles of horseflesh would pass before the first wagon appeared in sight; in other words, the first horse would be entering the city of Scranton, Pa., or Worcester, Mass., before the leading wagon pulled out of New York City.

"The past year has seen a very decided change of sentiment toward the adoption of the self-propelled vehicle, and New York can now boast of about 1,200 and Chicago of 612 freight automobiles, while throughout the country between 8,000 and 10,000 are in use."

#### Ideal Spot for Motoring in China.

Despite the fact that China popularly is supposed to be about the last country on earth, so far as motor cars are concerned, J. C. McNally, American consul at Tsingtau, reports that "there is no more ideal spot in the world for automobiles than Tsingtau." It has 50 or 60 miles of excellent roads extending along the ocean front and into the adjacent mountains, which roads are greatly used in the summer by persons spending their holidays at that famous Far Eastern resort.

Tsingtau, however, has only six automobiles, none of American make. While many persons speak of buying automobiles, the opportunity is so limited that they make the best of the situation and fall back on horse-drawn vehicles. Mr. McNally believes that a cheap car of known quality could be sold there, but suggests that the safest way to introduce the machines would

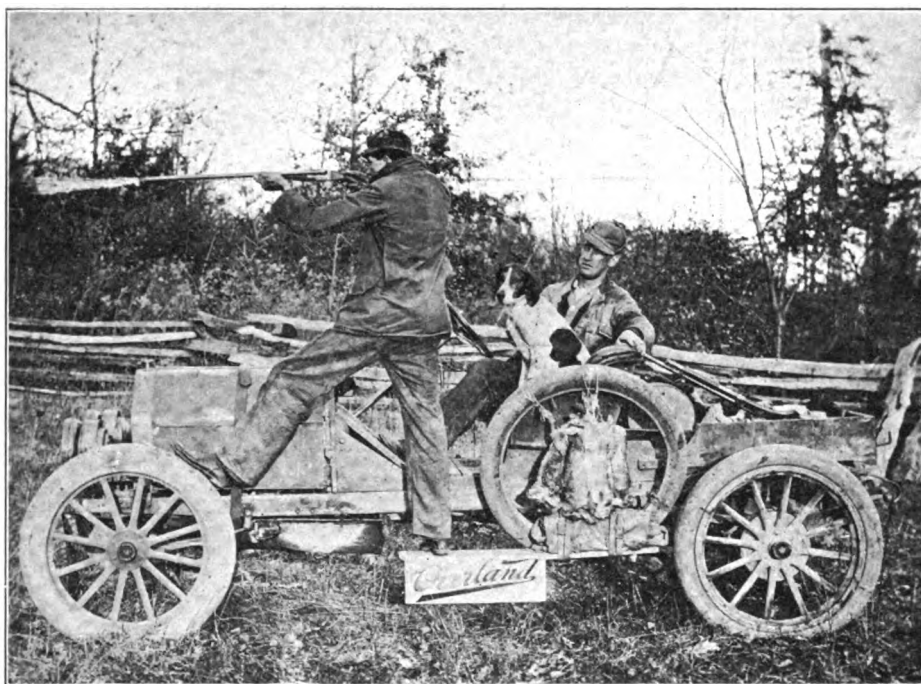
be to form a connection at Shanghai and sell from that point, as the freight charges between Shanghai and Tsingtau are low.

#### How Road Testers Lighten Their Work.

An automobile tester's job may not be a sinecure at this time of the year when the roads are frozen and "the wintry winds do blow," but it is not without its pleasurable side, at least in some portions of the country. In the vicinity of Toledo, Ohio, for instance, some of the Willys-Overland testers have taken to carrying guns and combining rabbit hunting with their work. The rabbits, which in many cases dart across the road in front of the rapidly

"When you are passing rapidly through the air in a motor car or an aeroplane this suffocating carbonic acid gas is pushed back into the lungs," he declares, "and only a little of it can get away, because of the wall of air pressing into the mouth. So it is 'rebreathed' and the result is carbonic acid gas poisoning, which produces a kind of narcotic sleep."

As breathing through the back of the head is not possible, it appears that in order to be immune from this new peril, the motorist must wear over the nose and mouth a contrivance of metal shaped like a U and having the ends extending backward to behind the ears in order that the



OVERLAND "TROUBLE HUNTERS" COMBINING PLEASURE WITH WORK

moving machines are shot while the cars still are in motion, and that some of the testers, at least, have good eyes as well as steady hands is attested by the accompanying illustration.

#### Foreign Physician Makes a "Discovery."

One of those unnamed physicians "prominent in British medical circles," who periodically break into print with more or less alarming discoveries, has found that many of the sudden and peculiar accidents to aviators and automobile race drivers are due, not to the "popular belief" that such catastrophes are caused by sudden heart failure, but to carbonic acid gas poisoning, "due to the pressure on the mouth set up by driving fast through the air and the consequent inability to expell the poisoned air which has already been breathed." As a matter of fact, practically all of such accidents have been due to derangements of machinery or tires, but a little thing like that does not feaze the English doctor who wants it known that "air once breathed is carbonic acid gas."

carbonic acid gas may find ready escape. Some consolation, however, is contained in the doctor's explanation that "one is not likely to come to grief from direct poisoning the first time he goes out, though in process of time a disease is produced," and that the danger to which he refers is greatest in winter, when, because of the complex mechanism of the lungs, it is not possible to inhale as great a quantity of air as during the summer.

#### Saving Money on Cars in Storage.

When a car is laid up for the winter, the motorist who is "wise" to the "tricks" of the insurance trade, cancels his policies covering liability, property damage, etc., the cancellation bringing with it the rebate of a tidy sum. In the spring when the car again is put in commission, entirely new policies of course are obtained. Insurance against fire is all that need be carried on a stored car and not infrequently if the place of storage is of the highly approved sort, a reduction in that rate is obtainable.



XXV.

New York, U. S. A., Thursday, December 22, 1910.

No. 12.

## RESTRICTIONS ON TRUCKS REMOVED

**New York Insurance Exchange Lifts Its Ban—Pier Owners Free to Permit Use of Gasolene Vehicles.**

If any owner or lessee of a New York pier desires to permit a motor truck or other gasolene vehicle on his property, he now is free to do so without invalidating or otherwise imperiling his insurance or without paying the extra 5 per cent. which heretofore has been expected from such pier owners as were willing to take the risk and pay for it.

For several years the National Association of Automobile Manufacturers, through its traffic manager, J. S. Marvin, has been bringing pressure to bear on the insurance companies to remove their restrictions, and as a result the New York Fire Insurance Exchange, at its regular monthly meeting on the 14th inst., finally lifted the ban; but at the same time it raised the base rate for piers from \$1.25 to \$1.60, except those "of superior or semi-fireproof construction, conforming to specifications for that class on file in the office of the Exchange." While all of the modern piers are in this class, the old piers still are in the majority, and will be affected by the advance in rate which, of course, more than offsets the amount saved by the rescinding of the extra 5 per cent.

Several of the piers have been paying this 5 per cent., but the greater number have executed the warranty which prohibited the use of gasolene vehicles on such properties. The nearest such vehicles have been permitted to encroach has been when taxicabs unloaded passengers on the bulkhead, and although trucks and all other automobiles no longer will entail penalties of any sort, it is stated in insurance circles that not all of the lessees purpose throwing open their piers. Such action remains purely optional on their part. The removal of the restrictions, however, is a big victory, and will prove a fillip for motor truckage.

The exact language in which the New York Fire Insurance Exchange lifted the ban is as follows:

"The base rate for piers is hereby advanced from \$1.25 to \$1.60, except that the base rate for piers of superior or semi-fireproof construction, conforming to specifications for that class on file in the office of the Exchange, shall remain \$1.25 as at present. The present counter advance on piers of 25 per cent. in certain portions of the Exchange territory and of 5 per cent. in other portions is hereby rescinded; and the present requirement for the inclusion of a charge of 5 per cent. in the card rates on structures and contents of piers the owners or lessees of which have not filed a warranty agreeing that vehicles propelled by the use of gasolene, naphtha, or other hydro-carbon oils will be permitted on their piers except when under shipment as freight, and then only with no gasolene, naphtha, etc., in their tanks, is hereby rescinded."

## Suit Against General Motors is Settled.

The suit of the Pontiac Buggy Co. against the General Motors Co. for \$85,000 which was instituted in September last was settled out of court last week. The amount involved represented the balance due of the purchase price of a building in Pontiac, Mich., sold by the Buggy company to the Oakland Motor Car Co., which later became a part of the General Motors organization. The latter endorsed the Oakland notes which were given for the building, and when they were not met the Buggy company brought action to recover the amount.

## Wetzel Takes Output of Hall Lamps.

In addition to the other products which he handles, Thomas J. Wetzel, of New York, will hereafter market the output of the C. M. Hall Lamp Co., of Detroit, in which he has been a director since its organization. Hall, who on January 1st will retire from the general management of the company bearing his name to join the staff of Claire L. Barnes & Co., will still retain an interest in it.

## UNTANGLING THOMAS'S AFFAIRS

**Creditors' Committee Reports Offer From Three Manufacturers—Briscoe Denies He's One of Them.**

Due to the efforts of a creditors' committee, of which W. H. Crosby is chairman, the E. R. Thomas Motor Co., of Buffalo, N. Y., apparently is in a fair way out of the troubles which have enmeshed it for several months past. Basing its report on statements contained in a confidential circular, a class journal recently reported that the Thomas Co. had "gone under," when, as a matter of fact, nothing of the sort had or has occurred; it had become heavily involved, and a creditors' committee was engaged in straightening out its affairs. Late last week this committee reported that "three experienced automobile manufacturers are contemplating financing the company," and submitted the conditions under which the financing would be undertaken. It promptly came out that Benjamin Briscoe and two of his colleagues in the United States Motor Co. were the three manufacturers concerned in the transaction, and when seen on Monday last by a Motor World man, Mr. Briscoe, after some diplomatic fencing, admitted that he had looked into the Thomas Company's affairs, but denied that either he personally or the United States Motor Co. contemplated financing or acquiring the Buffalo property. He said it did not fit into the United States Motor plans, and declared that the sum total of his interest in the matter had been to put the Thomas committee into touch with bankers who he thought might render the necessary support.

The plan submitted by the creditors' committee stated that the "three experienced automobile manufacturers" propose to acquire at par \$430,000 of the Thomas first preferred stock, for which they are to receive all of the company's common stock, paying the creditors 20 per cent. in cash,

and giving two notes for 40 per cent. each, the first maturing August 1, 1911, the other one year later, both drawing 6 per cent. interest. The three manufacturers also proposed to carry out contracts for material and supplies on hand or in progress of fulfillment.

The banking indebtedness of the Thomas Company amounted to more than \$600,000, but this has been paid by the sale of a large block of stock in the Chalmers Motor Co., which was held by Mr. Thomas personally. In return therefor the latter has agreed to accept three notes of \$100,000 each, payable on the first day of August, 1913, 1914 and 1915, and the balance in the preferred shares of the company. This would leave an indebtedness of about \$800,000 with a preferred stock issue of \$735,000 and a cash working capital amounting to \$300,000.

In submitting this plan to the general creditors, the committee stated that it would be carried out unless objection was made within five days, which time limit expired last night.

In large part, the Thomas Company's embarrassment is said to be due to its failure to charge off anything for depreciation of plant or equipment for a long term of years and to the carrying on its books of several large and hopeless losses, its assets and resources thus appearing much greater than really was the case, as the inventory of the creditors' committee quickly served to disclose.

#### Revere to Make Tires in Rhode Island.

The Revere Rubber Co., which is one of the units of the Rubber Goods Mfg. Co., and the one which produces the Continental tire, on Monday last filed articles of incorporation under the laws of Rhode Island, with capital stock of \$4,000,000. The incorporation is the first step toward the operation of a big new plant in Olneyville, R. I., which practically is a part of Providence. It is there that the tires will be made, but the present plant at Chelsea, Mass., will continue to be operated on other productions. The incorporators named in the application for the Rhode Island charter are: Judge James Harris, Walter S. Ballou, president of the Woonsocket (R. I.) Rubber Co., and Clarence H. Guild, treasurer of the same company.

#### United States Motor Re-Elects Directors.

At the annual meeting of the United States Motor Co., which occurred on Tuesday last, 20th inst., in Jersey City, the board of directors, fifteen in all, were re-elected. They are: Benjamin S. Briscoe, J. C. Brady, J. D. Maxwell, C. G. Stoddard, K. B. Schley, Frank Briscoe, Horace de Lisser, J. H. Edwards, R. Irvin, H. Lloyd, O. J. Mulford, W. H. Nuckols, R. A. Robinson, J. W. Wellington and C. Tucker. These directors will meet later and re-elect the officers.

## INSURANCE THAT FAILED TO FLOAT

**Big Name and \$1,000,000 Capitalization  
Served No Purpose—St. Louis Optimist  
Wants His Money Back.**

When the high sounding Automobile Insurance Co. of America was organized with \$1,000,000—in capital stock—in Indianapolis, Ind., last year, Orion S. Miller, of St. Louis, Mo., evidently had abiding faith in its ability to lasso, corral and otherwise secure oodles of "automobile money" and periodically to cut large luscious "melons." His faith was so great that after buying 250 shares of the \$10 stock, and paying 100 per cent. premium on them, he bought a second and larger dose to the extent of 2,250 shares and \$45,000. He is wiser now, the company's lasso having failed to capture the big game which it sought, and as it now seeks to transfer its assets to the Federal Union Security Co., also an Indiana corporation, Miller, in his increased wisdom, is endeavoring not only to prevent the transfer, but to get his money back. The story is an illuminating one of large plans that miscarried.

The Automobile Insurance Co. of America was incorporated October 27, 1909, with authorized capital stock of \$1,000,000, divided into shares of the par value of \$10 each, and with the names of D. M. Parry, the automobile and carriage manufacturer, and Senator Reed Smoot, of Utah, to help impress the public. Miller, in his application for a receiver and a restraining order, alleges that it was planned and partially carried out to sell each share of stock at \$20, using the amount received over and above par as a working surplus. Miller says he first paid \$20 a share for 250 shares, and later subscribed for 2,250 shares, paying \$23,750 in cash and \$21,250 in notes. He declares that other purchasers of stock paid in cash and by notes a total of about \$192,000 into the company's treasury.

October 18, 1910, when no more stock could be sold and it was found impossible to raise the necessary sum of \$300,000 before the company could transact business as an insurance company, it is alleged that the board of directors decided to sell the assets of the company to the Federal Union Surety Co., and that a contract of sale was made out.

Miller says that by this contract it was planned to transfer to the Federal Union Surety Co. ten shares of the automobile insurance company stock, for which the shareholders had paid at least \$200, for one share of the capital stock of the Federal Union Surety Co., of a par value of \$100, but in reality worth \$70, thereby giving the automobile insurance company stockholders \$35 for every \$100 they had invested.

The plaintiff asserts this would entail a loss of \$32,500 to him, and over \$100,000 to other stockholders. He therefore not only has applied to the Superior Court in Indianapolis for the appointment of a receiver and restraining order to prevent the carrying out of the transfer of the property to the Federal Union Surety Co., but also asks that the subscriptions he made for capital stock, and the notes he gave therefor be canceled and declared void. He asks a judgment of \$75,000 against the automobile insurance company and Charles W. Clark & Co.

The defendants to the suit are the Automobile Insurance Co. of America, David M. Parry, William P. Bidgood, T. C. Search, Joseph D. Cotton and Reed Smoot, directors; Edgar E. Hendee, selling agent; Charles W. Clark, of Charles W. Clark & Co., fiscal agent, and the Federal Union Surety Co.

After hearing the evidence presented, Judge Collier, of the Superior Court, on Tuesday, December 20, appointed John M. Hall receiver of the Automobile Insurance Co. of America, and fixed his bond at \$100,000. The assets to be turned over to the receiver amount approximately to \$22,000 in cash, \$81,000 in mortgages and \$55,000 in subscription notes.

#### Pickard Brothers May Leave Brockton.

Frankly admitting that it is handicapped by lack of capital, and stating that it has received flattering offers to go elsewhere, the Pickard Bros. Motor Car Co., of Brockton, Mass., has let it be known that unless local support is forthcoming it probably will leave Brockton. The Pickard brothers have been building cars in a small way for several years, but only a few weeks since incorporated their business with capital stock of \$150,000. They now desire to sell \$50,000 worth of the stock which they say will enable them to double their output of two or three cars per week, and permit them to meet orders in hand. The Brockton Board of Trade and the Brockton Merchants' Association met the Pickards, and, after listening to their statements, appointed a committee with a view of keeping the industry in Brockton.

#### Receiver Seeks to Operate Parry Plant.

The Union Trust Co., receiver of the Parry Automobile Co., of Indianapolis, has filed a petition in the Superior Court, asking authority to operate the factory until the creditors of the company can perfect reorganization plans and take the company out of the hands of the receiver, a creditors' committee having undertaken that task. To provide funds the receiver suggests that any expenses incurred in the continuation of the business become a first lien on the assets of the company, and that whatever money is advanced by the receiver be returned out of the first proceeds of the factory after payment of the court costs.

**GENERAL MOTORS MAKES SHOWING****Banking Interests Issue Statement Giving Impressive Figures—How the \$15,000,000 Loan Is Handled.**

For the first time since Wall Street interests advanced the loan of \$15,000,000 to the General Motor Co. and took a mortgage on its assets and assumed practical direction of its affairs, a statement of the \$60,000,000 company's condition has been issued. On their face the figures show that its net profits for the year ending September 30, 1910, were \$10,266,322.27, and that its total assets are \$37,770,363. The statement is in the form of a printed circular issued "for the benefit of investors," and is in no wise a detailed one, but the bankers point out that the year's profits are sufficient to meet more than eleven times the interest on the \$15,000,000 note issue and two-thirds of the principal. The statement really comprises a report of financial conditions rendered by W. C. Durant, vice president of General Motors, based on an audit made by Marwick, Mitchell & Co., chartered accountants, as of September 30.

In both sets of figures the proceeds of the note issue are included in the assets, and thus swell them to the extent of \$15,000,000, but the note issue for this sum does not appear in the liabilities. When Mr. Mitchell, of the accounting firm, was asked to explain this apparently great inconsistency, he explained that the published statements were not to be construed as a trial balance sheet, but merely as a guide to show investors the extent of the security behind the big note issue. "In placing the liabilities at \$14,225,105.23," he said in substance, "the accountants did not include the \$15,000,000 of notes issued or to be issued, in order more plainly to show the equity which would guarantee the notes—the security which would guard prospective investors. While the notes themselves are not included in the liabilities of the companies, the proceeds to be obtained from their sale were included in the assets, and although these facts are fully stated in parentheses in the text of the table, their exclusion from the liabilities tends to create a favorable first impression upon the prospective investor, which naturally is the object of a prospectus sent out by banking houses interested in sale of such shares."

The published circular makes known that the bankers have formed a finance committee to control the finances of the company. It is composed of Emory W. Clark, A. H. Green, Jr., M. J. Murphy and Thomas Neal, the four Detroit men, who last month were added to the board of directors; W. C. Durant, of Flint; James J. Storrow, representing Lee, Higginson & Co., and Albert Strauss, representing the Seligmans.

**GENERAL MOTORS' STATEMENT OF CONDITION.  
REPORT OF AUDIT BY CHARTERED ACCOUNTANTS**

Since September 30, 1910, the company has received the proceeds of \$15,000,000 6% First Lien Five Year Gold Notes which it has issued and has paid off certain contingent liabilities, amounting to \$600,000, referred to in our previous letter to you, thereby completing the purchase of the stock of one of the Subsidiary Companies and, in addition, releasing and receiving back into the Treasury \$600,000 of its own preferred stock which had been pledged in connection with the transaction.

Adjusting the figures as audited by us September 30, so as to take into account the proceeds of the sale of the First Lien Notes and the discharge of the contingent liabilities above referred to, the position of the Companies would be, briefly, as follows:

**Assets and Liabilities.**

	June 30, 1910	September 30, 1910
Interest of the General Motors Co. in the Gross Assets of the Subsidiary Companies specified in Mr. W. C. Durant's letter to you of even date, based upon its proportionate stockholdings in these Companies:		
Fixed Assets (Real Estate, Plants, Equipment, etc., at cost, less depreciation) .....	\$12,127,000.00	\$13,216,260.81
Current and Working Assets (inventories at cost, receivables and cash, the September figures also including proceeds of \$15,000,000 of notes, as above explained) .....	24,541,000.00	38,372,598.82
Miscellaneous Investments .....	252,000.00	406,609.13
	<u>\$36,920,000.00</u>	<u>\$51,995,468.76</u>
Liabilities of the General Motors Co. either directly or through said Subsidiary Companies (the September figures including settlement of \$600,000 contingent liability above referred to, but excluding First Lien Notes) .....	\$14,312,000.00	\$14,225,105.23
Equity of the General Motors Co. in the Net Assets of said Subsidiary Companies .....	<u>\$22,608,000.00</u>	<u>\$37,770,363.53</u>

After setting aside sufficient cash to pay all bank loans and matured obligations of the Company and said Subsidiaries, the Companies should have about \$3,000,000 of cash on hand.

**Profits.**

	Previously estimated	Now ascertained
General Motors Co.'s proportion of the profits of the Subsidiary Companies, based upon its present stockholdings in these companies for the year 1908-1909...	\$8,844,600.00	\$9,257,151.88
General Motors Co.'s proportion of the profits of the Subsidiary Companies, based upon its present stockholdings in these Companies for the year ending September 30, 1910.....	10,485,000.00	10,266,322.27

The net profits above stated represent profits which would normally be available for payment of dividends, all ordinary operating and administrative expenses having been duly provided for. Both in arriving at the above valuation of the assets and in computing the profits earned, due provision has been made for depreciation on the various plants, over \$1,000,000 having been set aside therefor in the two years now reported upon.

The accountants add that in arriving at the valuation of assets nothing has been included for "good will, agreements, etc.," nor is any account taken of investments other than motor car properties, which other investments are carried at a book value of \$7,663,939.90.

**VICE-PRESIDENT'S REPORT OF FINANCIAL CONDITION**

Vice-President Durant's report of "Financial Condition" states:

The gross sales of the Subsidiary Companies of the General Motors Company during the year ending October 1, 1909, were approximately \$34,000,000, and for the year ending October 1, 1910, were approximately \$58,500,000. The equity of General Motors Company in the net profits of its Subsidiary Companies amounted to \$9,257,151 in the year 1908-09, and \$10,266,322 in the year ending September 30, 1910.

The General Motors Company has received the proceeds of the issue of \$15,000,000 First Lien Notes, and from these will discharge all its outstanding indebtedness and that of its subsidiary motor-manufacturing Companies (except current operating accounts), and will then have about \$3,000,000 in cash on hand.

These \$15,000,000 notes are represented by the following assets, based upon audit of Messrs. Marwick, Mitchell & Co., as of September 30, 1910:

Real Estate, Plants and Equipment of Subsidiary Companies valued (at cost less depreciation) at.....	\$13,216,260.81
Miscellaneous Investments .....	406,609.13
Net Current and Working Assets:	
Inventories at cost, receivables, and cash, including proceeds of these notes.....	\$38,372,598.82
Less all liabilities, except these notes.....	14,225,105.23
	<u>24,147,493.59</u>

Total Assets..... \$37,770,363.53

For purposes of comparison I have limited the above statement to those assets dealt with in Messrs. Marwick, Mitchell & Company's report to you of even date and have omitted other assets having a book value of \$7,663,939.90.

The present working capital of the Company and its Subsidiaries is sufficient for an output equal to that of last year.

## THE WEEK'S INCORPORATIONS.

Bay City, Mich.—General Auto & Supply Co., under Michigan laws, with \$2,000 capital.

Pittsburg, Pa.—Liberty Auto Tire & Supply Co., under Pennsylvania laws, with \$10,000 capital.

Waterloo, Ia.—Roy Cushman Co., under Iowa laws, with \$10,000 capital; to buy, sell, rent and exchange old and new automobiles.

Cincinnati, Ohio—Imperial Motor Car Co., under Ohio laws, with \$150,000 capital; to own and operate garages, to deal in automobiles and accessories.

Cleveland, Ohio—Hewitt Motor Truck Co., under Ohio laws, with \$10,000 capital. Corporators—W. C. Malin, J. H. Price, M. J. Scott, E. G. Guthrew.

Detroit, Mich.—Ideal Commercial Car Co., under Michigan laws, with \$10,000 capital. Corporators—J. C. and R. B. Sage, T. C. and I. L. Creighton.

Chicago, Ill.—Ohio Electric Vehicle Co., under Illinois laws, with \$2,500 capital. Corporators—William G. Wise, Herman P. Vichorn, Worth E. Gaylor.

Boston, Mass.—Globe Auto Top Mfg. Co., under Massachusetts laws, with \$5,000 capital. Corporators—Jacob A. Goodman, John R. Hughes, Samuel Goldstein.

Coshocton, Ohio—Vickers Motor Co., under Ohio laws, with \$25,000 capital; to deal in automobiles. Corporators—Eugene McMaster, W. C. Myers, C. B. Vickers.

Detroit, Mich.—Morgan Mfg. Co., under Michigan laws, with \$10,000 capital; to manufacture and deal in motor vehicles. Corporators—H. S. Morgan, C. S. Morgan.

Detroit, Mich.—Chief Motor Co., under Michigan laws; to manufacture, and deal in automobiles. Corporators—Francis A. Mueller, Thomas J. Atkinson, Jere F. Oundy.

Bluffton, Ind.—Grove Garage Co., under Indiana laws, with \$6,000 capital; to maintain a garage and renting service. Corporators—H. L. Norris, O. E. Shafer, W. B. Grove.

Louisville, Ky.—McCormick-Montenegro Co., under Kentucky laws, with \$6,000 capital; to deal in automobiles. Corporators—A. L. McCormick, A. Montenegro, R. Montenegro.

Portland, Ore.—Schacht Motor Car Co., under Oregon laws, with \$20,000 capital; to deal in automobiles. Corporators—Giles W. Brown, Charles Carothers, Mabel E. Brown.

Detroit, Mich.—Thelma Motor Works, under Michigan laws, with \$11,000 capital; to manufacture gas engines. Corporators—Alfred Robinson, M. Sullivan, Dufton Sullivan.

El Paso, Tex.—Western Motor Supply Co., under Texas laws, with \$6,000 capital;

to deal in automobile supplies. Corporators—P. J. Savage, George W. Kennedy, John T. Fletcher.

Los Angeles, Cal.—Kissel Automobile Co., under California laws, with \$5,000 capital; to deal in automobiles. Corporators—P. R. Rix, Alma Menzel, G. A. Kissel and others.

Cincinnati, Ohio—Jungclas Automobile Co., under Ohio laws, with \$10,000 capital; to buy, sell and rent automobiles. Corporators—William C., Edward H., Carrie and Edna Jungclas.

Boston, Mass.—Basile Automobile Co., under Massachusetts laws, with \$150,000 capital; to deal in automobiles. Corporators—G. S. Pines, W. S. Baer, E. R. Newman, all of Chicago.

Richmond, Va.—Merchants' Motor Delivery Co., under Virginia laws, with \$25,000 maximum, \$5,000 minimum capital; to operate a motor package transfer for the city of Richmond, Va.

Los Angeles, Cal.—California Motor Co., under California laws, with \$10,000 capital; to operate and deal in automobiles. Corporators—A. D. McLaughlin, E. W. Freeman, R. A. Richardson.

Dubuque, Ia.—Dubuque Auto & Garage Co., under Iowa laws, with \$75,000 capital; to maintain a garage and renting service. Corporators—B. J. Schwind, G. A. Eulberg, H. J. Kalp, F. G. Becker.

Detroit, Mich.—Endurance Tire Co., under Michigan laws, with \$150,000 capital. Corporators—Howard Hodgson, Edward Pokorny, Joseph L. Schlund, George D. Reid, Arthur H. Britton.

Chicago, Ill.—Multi Mfg. Co., under Illinois laws, with \$100,000 capital; to manufacture and deal in automobiles, parts and accessories. Corporators—George W. Beyers, M. M. Freiberg, H. A. Caperton.

Chicago, Ill.—Chicago Taxi Co., under Illinois laws, with \$50,000 capital; to do general automobile and garage business and operate taxicabs. Corporators—William J. Candlish, A. B. McCord, F. Benjamin.

Yonkers, N. Y.—Standard Motor Express Co., under New York laws, with \$15,000 capital; to operate a motor express delivery service. Corporators—Richard Helmers, William P. McGuire, Robert L. Coles.

East Orange, N. J.—Recording Speedometer Sales Co., under New Jersey laws, with \$125,000 capital; to manufacture recording instruments. Corporators—H. H. Picking, C. O. Geyer, F. T. Ruggles, East Orange, N. J.

New York City, N. Y.—The F. & M. Specialty Co., under New York laws, with \$50,000 capital; to manufacture and sell self-propelled vehicles, etc., engines, etc. Corporators—R. V. Fitzgerald, Newark, N. J.;

O. S. McFarland and G. Colvin, of New York City.

New York City, N. Y.—Safety Tire Co., under New York laws, with \$50,000 capital; to manufacture tires for automobiles and bicycles. Corporators—R. H. Schenck, W. E. Holloway, of New York City; O. R. Van Vechten, of Tompkinsville, S. I.

New London, Conn.—Pennsylvania Oil Co., of New London, under Connecticut laws, with \$10,000 capital to manufacture lubricating oils and to conduct automobile business. Corporators—John B. Carleton, F. A. McCreery, William Weiner.

Providence, R. I.—Curtis-Young Co., Inc., under Rhode Island laws, with \$10,000 capital; to maintain a garage and automobile salesroom. Corporators—Frank L. Young, George W. Curtis, Arthur P. Young, William L. Curtis, all of Boston, Mass.

Pittsburg, Pa.—Winterton Mfg. Co., under Pennsylvania laws, with \$5,000 capital; to manufacture and deal in automobiles and other motor vehicles. Corporators—E. Z. Wainwright, Jr., Willard G. Bratton, J. G. McQuillan, A. D. Griffith, all of Pittsburg.

Aspinwall, Pa.—Aspinwall Automobile & Garage Co., under Pennsylvania laws, with \$7,500 capital; to deal in automobiles and maintain a garage. Corporators—W. C. Tibbey, Sharpsburg; G. B. Fehr, C. A. Philips, W. E. Cole, W. W. Dyer, J. Walter Beever and J. L. Shakely, Aspinwall, Pa.

## Increases and Decreases of Capital.

Toledo, Ohio.—Ohio Electric Car Co., from \$75,000 to \$100,000.

Chicago, Ill.—Chicago Overland Sales Co., from \$2,000 to \$5,000.

Detroit, Mich.—Russell Motor Axle Co., from \$100,000 to \$150,000.

St. Louis, Mo.—Autogenous Welding Devices Co. from \$5,000 to \$10,000.

Detroit, Mich.—Detroit Gear & Machine Co., from \$100,000 to \$150,000.

Oklahoma City, Okla.—Buick Oklahoma Auto Co., name amended to McClelland-Gentry Motor Co., and capital decreased from \$20,000 to \$10,000.

## Recent Losses by Fire.

Snyder, Tex.—Snyder Garage damaged; two cars destroyed. Loss, \$3,000.

Spokane, Wash.—Cadillac Garage, 707 Front avenue, burned. Loss, \$10,000.

Portland, Ore.—Harrison Auto Livery Co., two automobiles burned. Loss, \$3,000.

New York City, N. Y.—Henry A. Stone, 707 St. Nicholas avenue; car burned. Loss, \$7,500; insurance, \$1,000.

Pittsburg, Pa.—Neville-Fifth Automobile Co., 609 Neville street; garage and fifteen automobiles destroyed. Loss, \$40,000. Caused by short circuiting of electric light system in garage.



**In the Retail World.**

The Childress-Brush Motor Co., of Dallas, Tex., has filed a certificate of dissolution.

C. E. Gunsilus has purchased the Neitert Garage in Rockwell City, Ia., and will continue the business in his own name.

The Gode Brothers Garage in New Braunfels, Tex., has been sold to A. F. Moeller, who will add a renting service.

The Motor Vehicle Co. has opened salesrooms on North Capitol avenue, Indianapolis, Ind. B. M. Wylie is in charge of it.

A new salesroom and garage has been opened at 68 South Main street, Phillipsburg, N. J., by the G. W. Shoemaker Motor Co.

The Regal Garage Co. is a new concern which just has opened up at 1227 Sprague avenue, Spokane, Wash. W. H. Preston is the manager.

The Motor Accessories Co., a newly organized company of Indianapolis, Ind., soon will be ready for business at 323 North Pennsylvania street.

The East Side Automobile Co., of Portland, Ore., has been reorganized and Dr. G. T. Watts elected president of the concern. Edward Suitor is the new manager.

Otto Kootz, formerly connected with the Studebaker advertising department, has obtained the Michigan State agency for Premier cars. He will open sales rooms in Detroit and Grand Rapids.

Under the style the Marion Automobile Co., a new concern has just been formed in Omaha, Neb., to take over the business of the Van Brunt Automobile Co. C. W. McDonald is the manager.

McDonald & Lofland, owners of a garage at 70 Benedict avenue, Norwalk, O., have moved their business to the building formerly occupied by the C. F. Jackson Co.'s garage at 6-8 East Seminary street.

The Irving Garage, Washington, D. C., of which Irving C. Barber, Edwin Hellier and Gordon Gregg are the proprietors, filed a petition in voluntary bankruptcy in the Supreme Court on December 10. The combined assets of the three individual owners amount to \$238.48, while their liabilities exceed \$3,300.

The Corlew-Coughlin Motor Co., of Boston, Mass., has been petitioned into involuntary bankruptcy at the instance of three creditors whose claims aggregate \$7,432. It is alleged in the petition that the company made an assignment for the benefit of its creditors on August 19 last, to Wallace Wilson, of Boston.

Combining their respective businesses, A. Anderson and B. Tilghman, Palatka (Fla.) agents for the Rambler and Ford cars, respectively, have formed a partnership under the style of Anderson & Tilghman, with headquarters in the Athletic building on Front street. They will handle several

makes of cars in addition to the Ford and Rambler lines.

L. H. Simmons, Frank Herbst and other residents of Wilmington, Del., are endeavoring to bring about the consolidation of all the garages in that city, two of which, the Wilmington Auto Co. and the Wilmington Motor Car Co., will form the basis of the proposed merger. A prospectus outlining a \$30,000 company designed to carry out the plans has been issued.

The Gibson Automobile Co., of Indianapolis, Ind., has filed in the Superior Court of Indiana a petition for a receiver for the Auto Sales Co. The petitioner, which is also a creditor, alleges that the Sales company is insolvent and has been obliged to quit business, and asks the receivership for the purpose of marshaling the assets for the purpose of applying them on the indebtedness.

The Franco-American Auto Supply Co., of Chicago, Ill., has asked for a receiver for Merriman Brothers, of that city. As creditors of the defendants, an injunction is asked to prevent foreclosures of mortgages which are said to exist upon certain of the firm's assets, and it is also asked that all creditors be restrained from prosecuting suits for collection of debt against Merriman Brothers.

A petition in voluntary bankruptcy has been filed by Clifford P. Chamberlin and William L. Chamberlin, doing business under the name the Linwood Garage, at 3233 Troost avenue, Kansas City, Mo. Their joint liabilities are \$170,150, with no assets. The Chamberlins left the Linwood Garage on November 18th, after operating it for a year; they were formerly brokers in Hamilton, Ohio. A. O. Brooks now is operating the garage.

The Motor Sales Co. of Oklahoma City, has been organized in that western town and has taken over the business of the White Garage Co. The headquarters of the new concern are at 318-320 West First street and will house White gasoline and steam cars and the Peerless line. J. E. Crawford, of Oklahoma City, is president; Wayne Ward, of New York City, is vice-president and general manager, and Dave Murray, also of New York, is treasurer.

W. S. Jewell, former manager of the H. H. Franklin Mfg. Co.'s New York branch, who recently obtained the agency for the Kelly trucks, has formed a company under the style the Motors Engineering & Sales Co., with headquarters at 250 West 54th street. He is the vice-president and sales manager of the new company, while the other officers are: Chester Griswold, president, who is also a director of J. G. White & Co., and connected with several other large corporations, and James L. Breece, Jr., who is the secretary and superintendent.

**Changes Among Prominent Tradesmen.**

Virgil Oldberg, formerly president of the Oldberg Mfg. Co., makers of mufflers, etc., has been appointed manager of what is styled the technical department of the Regal Motor Car Co., of Detroit. The department is a new one and will work in conjunction with the repair and trouble department. It will give advice to Regal owners, supply them with extra parts and generally endeavor to render them service. Oldberg is an engineer graduate of Cornell, and in addition to being an inventor, served a term as an instructor at Cornell.

Henry Knott, for the past three years with the Frank Seaman Advertising Agency, of New York, has been appointed advertising manager of the E-M-F Co., and, of course, will make his headquarters in Detroit. In addition to having the intricacies of advertising at his finger tips, having managed the campaigns of the American Tobacco Co. and the Rock Island Railroad, Knott's versatility has shown itself in the writing of a play in which Mary Shaw starred, and in lectures delivered at universities on literary subjects.

**Endurance Tire Appears in Detroit.**

The Endurance Tire Co., of Detroit, capitalized at \$150,000, which has been organized under the laws of Michigan, has for its object the production of a solid rubber tire invented by Howard Hodgson, which is claimed to be "more resilient than air." The tire is formed of rubber sections held by a steel case, a hoop of steel supporting the tire with a 3/4-inch air space between the hoop and the rim. In addition to Hodgson and his attorney, Edward Pokorny, the men interested in the venture are Joseph L. Schlund, George D. Reid and Arthur H. Britton.

**New Men to Operate Detroit-Dearborn.**

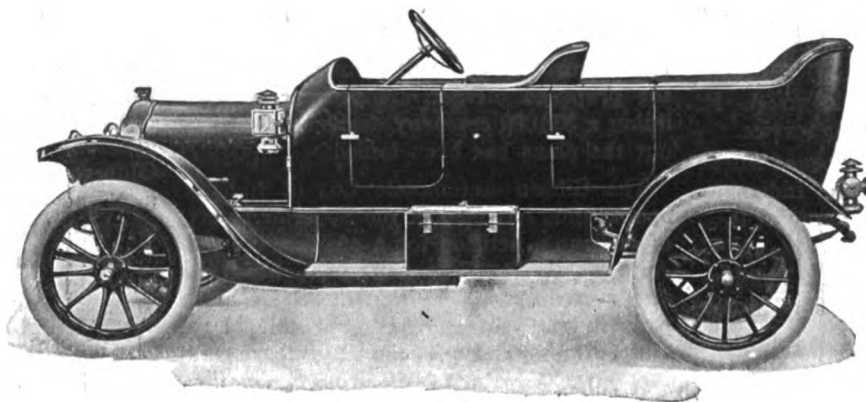
At the public sale of the assets of the bankrupt Detroit-Dearborn Motor Co., in Detroit on Thursday last, 16th inst., the property brought \$14,800. It was bid in at that price by Vernon C. Fry, who will head a new company that will operate the plant and at once begin to turn out cars.

**Conflict of Trade Banquets Avoided.**

The Society of Automobile Engineers has moved up the date of its banquet in New York from January 12 to January 11. The conflict with the banquet of the Association of Licensed Automobile Manufacturers, which also had been fixed for the 12th, thus is avoided.

**Fisher Prepares to Build Closed Bodies.**

The Fisher Closed Body Co. has let contracts for the erection of a three-story brick factory on Oakland street, between Trombley and Piquette streets, in Detroit. It will cost about \$15,000.



## If You Could Go Through Our Factory

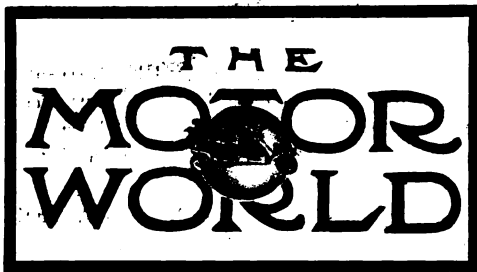
**T**O go through our factory—to see just how carefully each part of our cars are built is often a liberal education in itself. To stand before the great heat-treating furnaces and see how the grain of chrome nickel steel is made finer, closer and tougher is something—to take a cold-chisel and blacksmith hammer and try to cut a tooth out of a gear so treated, without success, and you begin to understand what “well built” means in the White Factory. Heretofore, the technical terms we used to tell you how good the materials were, appealed to you as mere words, but in the presence of this demonstration even a tyro knows the thing is well done. One gets more insight into quality in a moment than in much reading of technical descriptions.

This is but one of the refinements everywhere present in the White construction. Four forward speeds in transmission work is just as superior to three speeds as our heat-treated steels are to ordinary steels. So careful is the White construction that even American castings are not satisfactory, and our cylinder castings are imported from France, where they make them a few at a time and get them just right. All these things mean life for the car—continued satisfactory service for its owner, and such a car is cheaper—regardless of its price, because up-keep and repairs are the big items in automobile operation. The White is economical—every owner can prove it.

May we send you catalogue or owners' testimonials?

**The White**  **Company**

830 East 79th Street, Cleveland



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"I would thank you to hereafter mail the Motor World to my office instead of to my home as at present. I find it too valuable an asset in my business to run the chance of losing a copy now and then, which has sometimes been the case when mail is addressed to my residence."—W. Stafford Banks, Los Angeles, Cal.

#### Amenities of Commercial Strife.

Although commercial competition too often is viewed in the light "Every man for himself; the devil take the hindmost," the practice which has prevailed in the automobile industry of late is significant of a changing spirit of the times. Although competitive strife is fierce, the idea that it is a part of such competition to try to put the "other fellow" out of business or to jump on him when he goes lame has received some agreeable shocks.

The manner in which creditors' committees have gone to the assistance of em-

barrassed concerns and effected or sought to effect reorganization and aided the cripples to again get on their feet, and the manner in which creditors generally and even rivals have extended helping hands cannot but excite remark. Of course, it may be argued that such assistance is of a selfish nature, inasmuch as the creditors desire to obtain 100 cents on the dollar, but it is fairly well known that in not a few instances some of the creditors who actively have given themselves to the cause of uplifting their lame brothers have devoted far more time and energy to it than their claims were worth. The same time and energy would have earned far more profit if expended in other directions. And although the selfish motive usually may inspire such action, it is known that civic pride several times has been the cause of it—pride born of desire to avert failure in the city or the industry, or both, with which the particular individual is identified.

#### The Promise of Front-Wheel Brakes.

It is practically certain that in due season the subject of front-wheel brakes will be agitated with more or less earnestness in this country. In England, where the system originated, there already are several makers who are committed to the use of brakes on all four wheels, while there is promise that before another year others will have joined the movement. At the Paris Salon several cars were on view which mounted braking equipments of the sort, and at least one in which the brakes are hydraulically operated and hence are perfectly balanced. That American manufacturers sooner or later will come to view the front-wheel brake as a possible addition to standard equipment practically is a foregone conclusion.

Admitting that it is a troublesome mechanical problem to install brakes on the front wheels in such a way that they will not interfere with ease of steering and not be affected by spring movement, and of reinforcing the front axle in such a way that it will be able successfully to withstand the added stresses which the brakes involve, there are two strong points in favor of the system. One point is that when the brakes are applied to all four wheels, the entire weight of the vehicle may be utilized in securing the retarding effort, instead of only that portion of the weight that is con-

centrated on the rear wheels. This has the effect of distributing the abrading effect of braking stresses over four tires instead of two, and likewise of relieving the stresses on the braking mechanism from lever or pedal to bands. The other point is that braking four wheels instead of two has a very material influence in reducing skidding tendencies, and so renders the car equipped in this fashion much easier and safer to drive than one which is braked on the rear wheels only.

Whether the advantages gained by using four brakes on four wheels are destined to prove sufficient to warrant the expense of revising manufacturing methods sufficiently to incorporate the front brakes is a matter for the individual manufacturer to determine. Certainly until the movement takes root in this country there is no occasion for immediate concern, particularly insofar as the light and medium or low-priced car is concerned. There is one connection, however, in which it would seem extremely important, if not obligatory, for the maker to study the question very carefully; that is in connection with the development of the motor truck.

As far as the business vehicle is concerned, the requirements of style, whether in body construction or in mechanical design, are hardly to be considered. What is demanded is effective service at low cost. For the business wagon efficient brakes are, if anything, more essential than they are on cars of the pleasure type. With the possibilities of less expert handling, abnormal loading, infrequent attention and improper adjustment against which the builder of commercial vehicles must contend, it is necessary to carry safeguards to lengths which, under other conditions, would be considered extreme. Regarded in this light, it would appear that the advantages of the front-wheel brake cannot safely be ignored, at least by the makers who aim successfully to cater to the business man's trade.

#### The Wrong Way to Obtain Reciprocity.

It would seem that the usually admirable New Jersey Automobile and Motor Club is in the way of weakening a very just and worthy cause by its withdrawal from the Associated Clubs of New Jersey, and thereby severing of its connection with the American Automobile Association. What is required most of all in accomplishing

needed reforms in automobile legislation is unity of effort among all motorists, particularly among those who are interested in questions of moment. In its own strength the New Jersey club has gone about it the wrong way, and the chances of gaining inter-state reciprocity for which it so splendidly stands and for which it was hoped all New Jersey clubs would stand are considerably reduced by the spectacle of jarring factions on the motorists' side.

If, as is claimed, the second largest organization in the Three A's and one holding over 60 per cent. of the membership of the state body is unable to have its own way in the associated clubs, there must be something wrong within the club itself. If so, its efforts, independent of the state and national body, cannot be expected to count for much. Instead of creating a new factor in the legislative muddle, the club, which is vigorous and undoubtedly well-intentioned as well as numerically strong, should find means of gaining its points with the state association first of all. Thereafter there would be good reason to expect substantial accomplishment in making a public stand as a solid and unanimous body. Two struggling elements in the conflict, one a nominal power lacking support, and the other a strong faction without recognition and in rebellion, cannot be expected to make much headway under the conditions which usually obtain at Trenton when the legislature is in session. The situation is one calculated to make the Hon. "Joe" Frelinghuysen grin and rub his hands for very glee.

Although by those in authority it usually strenuously is insisted that the registration fee is not a tax, some one in the office of the Secretary of State of New York knows the truth when he sees it. In the "Owners' Renewal Applications," that just have been issued, the fee is denominated a tax, the word "Tax" being printed in letters so large as to overshadow everything else on the application form.

During the present year 10 fatal accidents have occurred at railway grade crossings in one small Michigan city. As long as the preservation of human life is considered less desirable than the payment of dividends, the average probably will be maintained and the public highways of America will continue to be perilous.

## COMING EVENTS

December 24-31, Los Angeles, Cal.—Second annual show of Licensed Motor Car Dealers' Association of Los Angeles at Fiesta Park.

December 25, Mexico City, Mexico.—Mexico-Pueblo road race.

December 26, Lake Charles, La.—Race-meet on Fair Grounds track.

December 31-January 7, New York City—"Independent" automobile show in Grand Central Palace.

January 2, San Francisco, Cal.—Panama-Pacific road races.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 7-14, New York City—Association of Licensed Automobile Manufacturers' eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 10, New York City.—Meeting of executive committee of American Automobile Association.

January 11, New York City.—Meeting of executive committee of National Association of Automobile Manufacturers.

January 11, New York City.—Meeting of the executive committee of the Association of Licensed Automobile Manufacturers.

January 11-12, New York City—Annual meeting of the Society of Automobile Engineers.

January 12, New York City.—Meeting of board of managers of the Association of Licensed Automobile Manufacturers.

January 13, New York City—Annual banquet of the Motor and Accessory Manufacturers at Waldorf-Astoria.

January 14-21, Milwaukee, Wis.—Milwaukee Automobile Dealers' Association's second annual show in the Auditorium.

January 14-28, Philadelphia, Pa.—Annual show of Philadelphia Licensed Automobile Dealers' Association in Third Regiment Armory.

January 16-21, New York City—Association of Licensed Automobile Manufacturers' eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 18, New York City—Annual banquet of the Automobile Trade Credit Association.

January 25-28, St. Paul, Minn.—First annual show of automobile dealers in Auditorium.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in

Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Pleasure and commercial cars, motorcycles and accessories.

February 6-11, Buffalo, N. Y.—Annual show.

February 13-18, Washington, D. C.—Second annual show in Convention hall.

February 13-18, Winnipeg, Canada.—Winnipeg Motor Trades Association's show.

February 14-18, Dayton, Ohio—Second annual show in Memorial building.

February 18-25, Binghamton, N. Y.—Annual show.

February 18-25, Minneapolis, Minn.—Minneapolis Automobile Show Association's annual show in National Guard Armory.

February 18-25, Newark, N. J.—New Jersey Automobile Exhibition Co.'s fourth annual show.

February 18-26, Brooklyn, N. Y.—First annual show of Brooklyn automobile dealers at 23d Regiment armory.

February 20, Cleveland, O.—Show in Central Armory.

February 20-25, Baltimore, Md.—Annual show in Fifth Regiment Armory.

February 20-25, Cincinnati, O.—Cincinnati Automobile Dealers' Association's show in Music Hall.

February 20-25, Omaha, Neb.—Third annual show of the Omaha Automobile Show Association in Auditorium.

February 24-27, New Orleans, La.—First annual show of New Orleans Automobile Club at Fair Grounds.

February 25-27, New Orleans, La.—New Orleans Automobile Club's annual Mardi Gras race-meet on Fair Grounds track.

February 25-March 4, Toronto, Canada—Annual show under auspices of Ontario Motor League.

February 27-March 4, Kansas City, Mo.—Fifth annual show of Kansas City Automobile Dealers' Association.

February 27-March 4, Sioux City, Ia.—Automobile Dealers' Association's annual show.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 6-11, Dayton, Ohio—Dayton Automobile Club's show in Memorial building.

March 7-11, Des Moines, Ia.—Third annual show of Des Moines Automobile Dealers' Association at the Coliseum.

March 11-18, Cleveland, O.—Manufacturers and Dealers' Association's show in Central Armory.

March 18-25, Pittsburg, Pa.—Annual show in the Exposition Building.

## REVOLUTIONARY IGNITION SYSTEM

**Combines Both High and Low Tension Properties—Gives Two Sparks in One—How It Does So.**

For some little time it has been known in inner-trade circles that a new ignition system, embodying exceedingly radical features, was in existence, and that it soon was to be launched by a company of unusual financial strength, considering the nature of the product. It was not until this week, however, that the details of the L-H-L system, as it is called, became available for publication. Combining some of the properties of both the high and low tension systems, it represents an application to ignition of certain well-known electrical principles, which hitherto have not been applied to this purpose. Its particular advantage is that a very hot spark is produced, which not only is superior to that developed by the make-and-break system, but is free from the mechanical complications which are involved in that system.

In a sense the system may be said to be a composite of the high and low tension arrangements. In respect to the generation of current, its commutation and the general construction of the spark plug, the system closely resembles the ordinary jump spark arrangement. The actual result, so far as ignition is concerned, however, is a low tension spark, and, therefore, one of high heat value.

The essential features of the system are a source of primary current, which may be either a magneto, a generator or a set of batteries; a "disruptive discharge" coil, a condenser and a distributor. The principle involved is that a high-tension or disruptive discharge has the effect of breaking down the resistance of a dielectric or non-conducting medium—in this case, the gap of the plug—through which it takes place. Instead of transforming the entire primary into a high frequency, high-tension, alternating current, as is done with the ordinary jump-spark system, only a portion of the energy is so converted, the remainder being shunted around the coil and discharged across the gap of the plug. The result is a combination spark, or rather, two independent and simultaneous discharges.

By way of explaining the apparent paradox it may be said that there is nothing either novel or peculiar about the simultaneous occurrence of two, or even more, electrical impulses in a single medium. The ether is constantly being agitated—to employ a figurative expression—by electrical waves, such as are produced by wireless systems and by other means; yet ordinarily without mutual interference, a single tele-

graph wire may be used for the transmission of several messages at the same time, while in other electrical work the use of a single conductor for more than one current by no means is unknown. The application of the same principle to discharge across a gap has been proposed before with the same general object, though its employment in a commercial way is entirely new.

The coil employed in the system in question contains but a few turns of relatively large wire, and no core. The high frequency current produced at the coil is discharged across the gap with extreme accuracy, but with practically no heat. The accompanying low-tension current, otherwise would not be of sufficiently high potential to bridge the gap. Under the reduced resistance caused by the high-tension discharge, however, it is enabled to do so. It is this portion of the discharge, or spark, that causes the intense heat which is the particularly strong point of the system.

The L-H-L system is the invention of Dow B. Hughes, formerly employed in the laboratories of the Edison Storage Battery Co. The system has been perfected with the financial support of Dr. Harry A. Lawton, of Warren, Ohio, the sole rights being controlled by the J. H. Lehman Manufacturing Co., of New York City, which already has completed its principal manufacturing and distributing arrangements. The system will be on public exhibition for the first time at the forthcoming show in Madison Square Garden, New York.

### Reduced Rates to New York Show.

As the American Automobile Association again will hold a convention during the Madison Square Garden show in New York, reduced railroad rates will be available for many of those persons who purpose attending that function, the Trunk Line Association already having granted a fare and three-fifths on the certificate plan, and other passenger associations having the matter under consideration.

The trunk-line territory embraces New York State, east of Buffalo, Niagara Falls and Salamanca; New Jersey and Pennsylvania, east of and including Erie. Oil City and Pittsburg; Delaware, Maryland, District of Columbia, Virginia and West Virginia, east of and including Wheeling, Parkersburg and Huntington.

Going tickets will be purchasable not earlier than January 5, and not later than January 11. Return tickets will be available up to and including January 20; and the validating will be done in Madison Square Garden, January 10, 11, 12 and 13.

### To Make Lamp Lighters in Massachusetts.

The Champion Igniter Co. has been formed in Hudson, Mass. It purposes producing the Koehler headlight igniter.

## WHEN GARAGE OWNERS ARE LIABLE

**Highest Court of France Holds Them for Damages Caused by Drivers They Furnish—Points Involved.**

Automobile owners of France, and more particularly the proprietors of French garages, are all stirred up over a decision of the Cour de Cassation, the highest court of the country, in fixing the responsibilities of an accident caused by a chauffeur. The facts in the case were as follows: A retired merchant bought a small runabout, and as he understood nothing whatsoever about its operation, he made an arrangement with the owner of the garage in which he stored the car to supply him with a competent chauffeur every time he desired to go out in his automobile. One day, while he was being driven along the boulevards, an accident happened, and the automobile owner was sued for damages arising therefrom, under a section of the French automobile law, which holds the owner of a car responsible for damages caused by it. The particular phase of this case had not been provided for in the law, and a legal battle ensued.

The lower courts held that inasmuch as the owner of the car did not understand anything of mechanics, he was incapable of giving directions as to the proper operation of the vehicle. All he could do and did do was to order the chauffeur to drive along certain streets to certain places, leaving the manner of driving and the speed chosen completely to the good judgment of the chauffeur. The chauffeur being in the service of the garage, as far as his mechanical abilities were concerned, therefore, represented the garage owner, and the latter was held liable for the damage caused by his employee. The court held that it was the duty of such a garage owner to supply only chauffeurs who were competent, careful and trustworthy to those of his clients who demanded such service; if, therefore, an accident happened, it was distinctly the fault of the garage owner. On final appeal to the Cour de Cassation this decision was affirmed, and the garage owner sentenced to pay all damages and costs.

In the affirmation of the lower courts, the Cour de Cassation laid emphasis upon the fact that the owner of the car did not interfere in any way with the mechanical end of the operation of the car, and, therefore, could not be blamed for anything the chauffeur did with the machinery, or any accidents resulting from carelessness in steering, etc. The contention of the defense that the automobile owner was responsible insofar as he could have objected to the employment of the chauffeur, and asked for one more competent, was over-



ruled, the court deciding that the owner was perfectly right in assuming that only a first-class, competent chauffeur was to be furnished him, without taking the trouble of personally investigating the abilities of the driver.

#### To Prevent Corrosion of Storage Batteries.

Though the majority of storage batteries now placed on the market are practically free from the corrosion usually a part of the product turned out by earlier manufacturers, there still are some which, through faulty design, or improper handling, are subject to the life-shortening trouble. The action set up on the plates of a storage battery by the acid liberates a certain amount of gas which must be allowed to escape, and for this purpose vents are left in each cell. The continual jolting of the car causes some of the acid to be plashed up through the vents and it gets on the terminals causing corrosion. If this corrosion is allowed to take place for any length of time it will spread and cause a partial short circuit, which, while scarcely appreciable, will shorten the useful life of the battery. As there is no kind of vent which will preclude the possibility of some of the acid getting out, the only way left to stop the corrosion is to prevent the acid from getting on the terminals by coating them with something which will resist its action. Ordinary vaseline may be used for this purpose, just sufficient to make the terminals greasy being put on. Another method is to coat the terminals with a solution made by dissolving a small quantity of celluloid in acetone. Everything but the actual contact points may be covered with this solution, which will harden in a short time and preserve everything it covers.

#### Simple Solder for Aluminum.

There are several methods by which aluminum may be soldered, among them the use of equal parts of zinc and tin. Absolute cleanliness is necessary in applying it, and for this reason all surfaces in the neighborhood of the part to be treated must be thoroughly cleaned. The solder must be heated to a temperature that will melt sulphur, and some of it rubbed over the parts to be soldered, then proceed with the soldering in the ordinary way. It is well to run a little tin over the whole job as a final precaution.

#### How Adjustment May Affect Spark Plugs.

No matter how much care may be taken in adjusting the porcelain body of a spark plug by the hexagonal nut, the points of the plug are very liable to be affected. The consequent turning of the center point will cause either a misfire or a complete failure of the spark, and no explosion would result. Therefore, after a plug has been adjusted, the points should be examined to see that they are set correctly.

## RADICAL TYPE OF STEERING GEAR

**Avoids Use of Worm and Sector and is Claimed to Eliminate Backlash—Baldwin Making It.**

Steering gears, more particularly the Brown patent steering gear, have been added to the productions of the Baldwin Chain & Manufacturing Co., of Worcester, Mass. The Brown invention is a wide departure from the usual gear, and the makers claim for it that it overcomes a great and very prevalent fault, the development of "back-lash." Usually the thrusts are taken by a worm and sector, a gear and pinion,

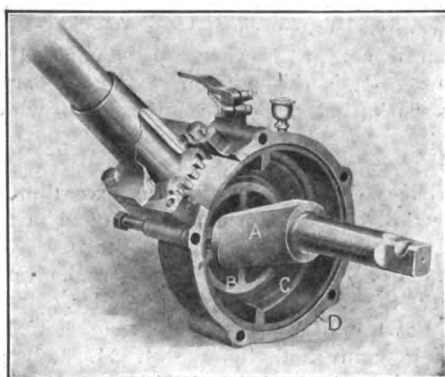


FIG. 1—SHOWING GEAR ASSEMBLED

or similar device, where only line contact is available, whereas the novelty of the Brown lies in the means employed to replace line contact with broad, flat and circular surfaces so arranged that any force applied to the ball lever will react on these surfaces, and also in so arranging the parts that a correct degree of reversibility or locking may be obtained.

As may be seen in the accompanying illustrations, Fig. 1 is a general view of the

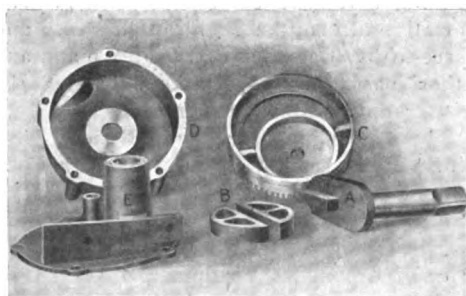


FIG. 2—SHOWING GEAR DISASSEMBLED

gear in which the parts are shown assembled except that the cover is removed showing the working parts in neutral position.

Referring to the cut "D" is the casing or housing which is secured to chassis or sub-frame. "C" is the eccentric piece (revolvable) in casing through an angle of 160 degrees. "B" are check pieces which revolve in and with the eccentric piece "C." "A" is the ball lever shaft to which is secured the

usual ball lever. The eccentric piece "C" is operated through a gear and pinion (not shown) by the usual steering wheel. As the steering wheel is revolved either to right or left, a corresponding movement is given to the eccentric and check pieces. These check pieces contact with the projection shown on the ball lever shaft "A" and it follows that any movement of the hand wheel will give a relative motion to the lever shaft; and as the ball lever is secured to this shaft, motion is transferred through the usual connection to the front wheels.

The degree of locking or irreversibility desired is secured by a proper location of the check pieces relative to the center of the eccentric piece "C"—the nearer the check pieces are to the center the greater the locking effect. The parts can be so arranged that an absolutely uniform motion may be transmitted from the hand wheel through the working parts to the ball lever.

The parts subjected to heavy shocks and wear are provided with extremely large wearing surfaces, and the teeth of the gear and pinions are almost entirely relieved from the constant hammering effect which is taking place when the car is in motion.

#### Winter Care of the Steering Gear.

During the winter the steering gear of a car which is undergoing constant use requires to be given more frequent inspection than at other seasons of the year. The reason is that soft snow imposes stresses upon the front wheels, which are more severe than those commonly encountered either in soft mud or sand, while the snow strains are continuous instead of intermittent as are those imposed by mud or sand. On this account the joints of the connections are far more likely to work loose in winter than in summer, while bent and broken rods or knuckles also are more likely to occur.

#### To Facilitate Replacing of Tight Shoes.

When replacing a tight shoe on a rim it often is difficult to replace the last few inches of the bead. This is particularly true if an internal shield is being used to protect a weak place in the tire. If, however, the tube is slightly inflated when as much of the shoe is put on as is possible, and the tire gently lowered to the ground until the obdurate side is pressed, the weight of the car invariably gets the tire in position. Care should be taken not to injure the inner tube.

#### Nail That Cannot Be Pulled Out.

One of the many prolific residents of France has devised a nail that, once it has been driven into place, resists all efforts to pull it. The point of the nail is slit through its center nearly two-thirds the distance to the head, like a cotter pin, and as the nail is driven, the two parts curl into the wood.

## Paris Show Brilliant But Unproductive

First Exhibition Held by the Manufacturers Themselves and First With Uniform Decorations—Several New Sliding Valve Motors and Many Low-powered Six Cylinder Engines but Few Startling Developments in Evidence.



GENERAL VIEW OF PARIS SALON IN THE GRAND PALAIS

Shorn of some of its former glory, and inaugurated under a new management, the Paris Salon, of 1910, which closed on the 18th inst., was altogether a different Salon from the last, which was held two years ago. Nothing of the sort held in Paris could, in the nature of things, be anything but spectacular, and the present show is striking and in many respects characteristic. But the uniform system of decoration adopted had the effect of breaking up the vista of the Grand Palais, and in itself was more or less confusing.

In order to understand the situation it is necessary to recall the circumstances which led to the discontinuance of the Salon by the old management and the omission of the 1909 show. Until the present

exhibition the shows have been managed by the *Chambre Syndicale de l'Automobile*, which, insofar as profits were concerned, was another name for the *Automobile Club of France*. As far as the expense of decoration were involved, however, the *Chambre Syndicale* may be said to have been composed principally of the manufacturers, inasmuch as the club shared none of this heavy cost. This was substantially the situation during the lean years of 1907 and 1908, and was the underlying cause of a split between the club and manufacturers, when the *Chambre Syndicale des Constructeurs d'Automobiles* was organized.

It was proposed by the new body to conduct the future Salons without the assistance of the automobile club, and, by adopt-

ing a uniform scheme of decoration to eliminate the rivalry which, in the past, had caused the more prosperous makers to expend vast sums in the embellishment of their stands. Unfortunately, however, the automobile club had an option on the Grand Palais for 1909, and the outcome was that the new organization declared a boycott on the proposed Salon of that year and rendered it a practical impossibility. Although it was the twelfth Paris Salon, therefore, the present exhibition was the first to be held by the manufacturers themselves, and the first to be staged with a uniform plan of decoration.

The show itself, also, was lacking in one of the features that, in the past, has rendered it the show of shows. In common

with all shows of the day, but to a more notable degree, it lacked the element of extreme novelty, not to say freakishness, both in cars, bodies and accessories. The rare imagination of the French was apparent in many instances, it is true, but not to its former extent. For the most part the exhibits were rather conventional in their nature, and sweeping trends were lacking. There were 350 stands, or less, 125 which were occupied by exhibitors of cars. The accessory and components exhibits, which composed the remainder, for the most part were those of the established manufacturers and dealers who showed more or less standard wares. But two American makes of cars were in evidence, namely, the Mitchell and Ford.

If the show may be said to have developed anything in the way of mechanical tendency, it is in the so-called "valveless" motor—which is not a valveless motor at all, but one having either sliding or rotary valves instead of those of the common or poppet type. There were practically a

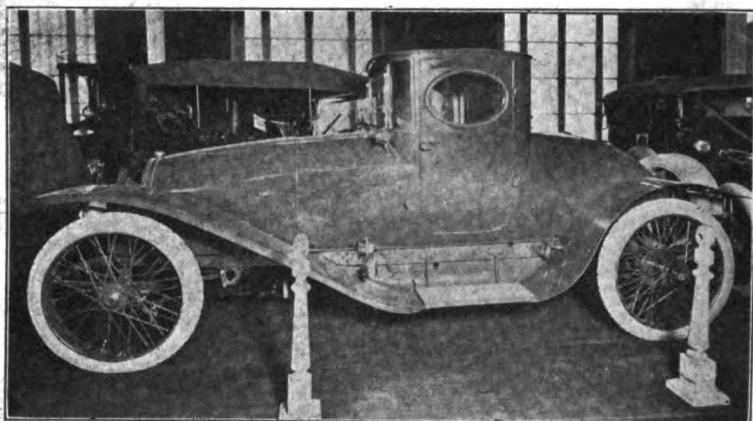
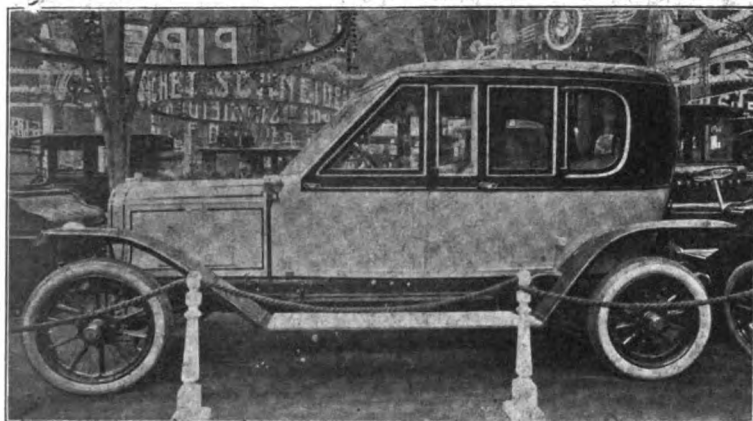


PANHARD "VALVELESS" MODEL

of two eccentric shafts. In the new CoterEAU motor a single sleeve likewise is deemed sufficient, but instead of being made to travel up and down the cylinder bore, as

is made to register alternately with the inlet and exhaust openings. The Sizaire et Naudin, formerly distinguished as a light voiturette with a huge, single-cylinder motor, now is built in the form of a light and more conventional machine, and is equipped with a motor of the "valveless" type.

Among the engines which reveal more radical departures from precedent, perhaps none attracted more attention than the Henriod, partly, it is to be inferred, for the reason that its constructor in the past has distinguished himself by several unfettered flights of fancy in the way of novel design. In this case, however, there is nothing irrational about his achievement, which is, nevertheless, distinctly radical. It is, in brief, a form of rotary valve which is broadly suggestive of the Corliss steam engine gear. That is to say, the valve itself is a D-section, though revolving in circular bearings, the flat side of the "D" serving to uncover the single port in the cylinder wall and to open communication with



CURIOUS BODY CONSTRUCTION OF 120 HORSEPOWER PIPE "CONNING TOWER" BODY ON GREGOIRE CHASSIS

dozen different motors of this class to be seen, including one or two that were shown in the balconies and also including the Panhard, Mercedes and English Daimler cars, which are equipped with variations of the Knight engine.

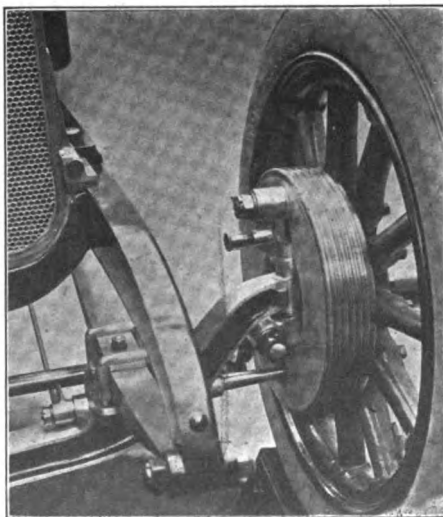
Several of the engines which fall within the valveless classification appear to have been designed by followers of Knight, yet each of them has peculiarities all its own. For example in the Roland-Pilain, but one sliding sleeve is employed, instead of two, as in the Knight engine, the motor otherwise resembling the Knight in many respects. Incidentally it may be mentioned that the Roland-Pilain car, in which was mounted a six-cylinder motor of the type in question, was further distinguished by an equipment of hydraulic brakes which were applied to all four road wheels.

In the case of the motor shown by Mustad et Fils, the valve construction was equivalent to a single sleeve split in half vertically. Each half sleeve carrying a suitable port opening, as in the Knight engine, is actuated independently from one

is done in the case of the valve systems previously mentioned, the valve sleeve is merely caused to revolve in a suitable recess which is formed in the cylinder wall. The single port opening in its surface thus

the intake or exhaust at the proper instant of the cycle. Unlike the Corliss valve, however, it does not oscillate, but revolves. Hence by placing one of the passages above and the other below the valve chamber, the single member is made to serve both the inlet and exhaust. A commendable point in the design is that the port is placed somewhat below the upper end of the piston travel in the cylinder, so that the valve is relieved of excessive pressure during the beginning of the firing stroke.

The Boissier motor, likewise is furnished with a form of rotary valve, termed a distributor, in this instance, which is mounted above the cylinders and which, as it is carried in ball bearings, offers very little frictional resistance. Owing to the relatively large size of the distributor and its casing, the motor is given a curious and rather top-heavy appearance, which is not in the least relieved by the vertical motion shaft and the housing for the helical gears by which the distributor is actuated. Still another motor of the rotary valve type is the Ballo, in which the valves are of hemispherical



ISOTTA FRONT WHEEL BRAKES

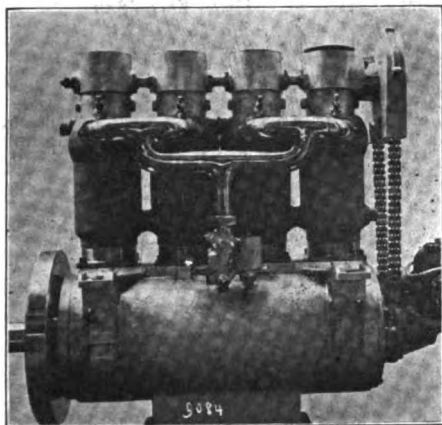


formation and oscillate, instead of rotating. Their movement is brought about by cam action, the valve motion shaft and cams being enclosed in a housing above the cylin-

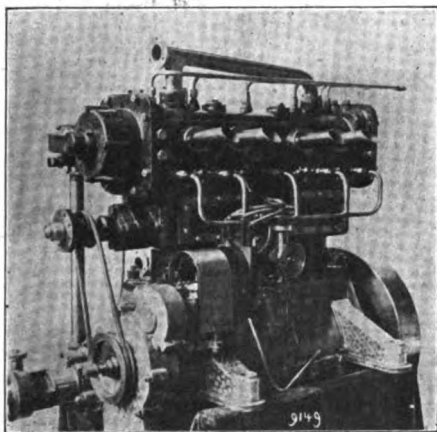
and causing a portion of it to revolve in the cylinder in addition to its reciprocating motion. A helical groove is formed in the outer part which leads from the base to a point just below the head, where a hole is cored through to a couple of ports in the head proper. The intake and exhaust ports, of course, are located in the lower part of the cylinder.

As a matter of fact, the piston is formed in two parts, the inner of which carries the true piston head, is connected to the crank shaft by means of the usual wrist pin and connecting rod, and does the work of driving. The secondary part is a surrounding sleeve, in which the helical groove

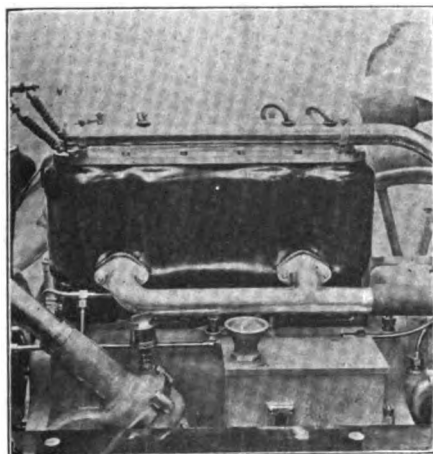
16 horsepower, and has a bore and stroke of 66 by 12 millimeters, or roughly, 2½ by 5 inches; and the Delahaye, which is rated at 18-24 horsepower, and has its cylinders



BALLOT HEMISPHERICAL VALVE MOTOR



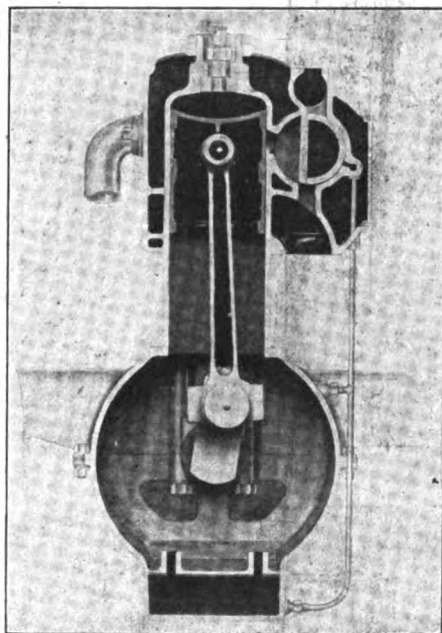
BOISSIER WITH CYLINDRICAL VALVE



BRASIER'S NEAT BLOCK MOTOR

ders, which is of peculiar and characteristic shape.

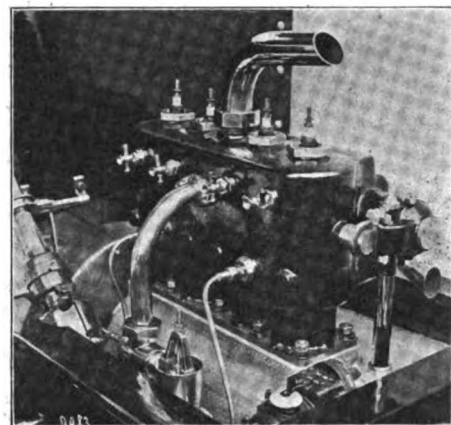
By all odds the most original, not to say freakish, design to be found was that of the Broc motor, in which the effects of a sliding valve and a rotary valve are achieved after a most curious fashion. The distribution is effected by the simple expedient of converting the piston itself into a valve



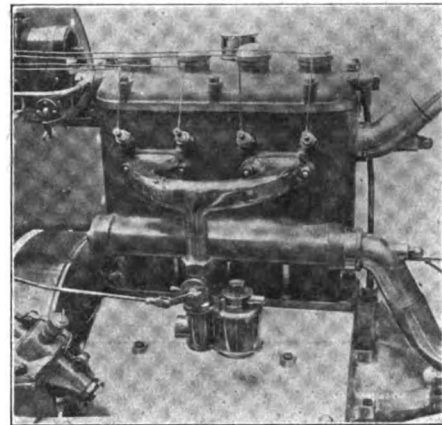
HENRIOD VALVE CONSTRUCTION

is formed, and which is rotated by means of a bevel gear on the lower end of a tubular shaft which telescopes the connecting rod and is driven by a stationary bevel gear attached to one of the crank webs. As the piston reciprocates, the outer or valve portion is reciprocated with it and also is rotated to effect the distribution. Thus the motor is valveless only so long as the outer portion of the piston is by courtesy considered a part of this piston and not a valve.

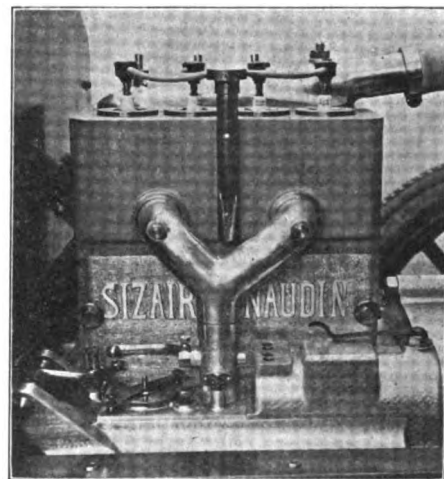
Among other points observed at the show was the apparently growing inclination of the French builders, as well as those of other Continental countries, to construct cars well within what is broadly termed the medium-powered class. Particularly noteworthy at this time, indeed, are the numerous cars of 16 to 30 horsepower nominal rating and especially those of somewhere about 20 horsepower. The block method of casting continues to grow in popularity, and not a few six-cylinder motors of relatively low power now are made in this fashion. Among such may be enumerated the Delage, which is rated at



HENRIOD MODIFIED CORLISS VALVES



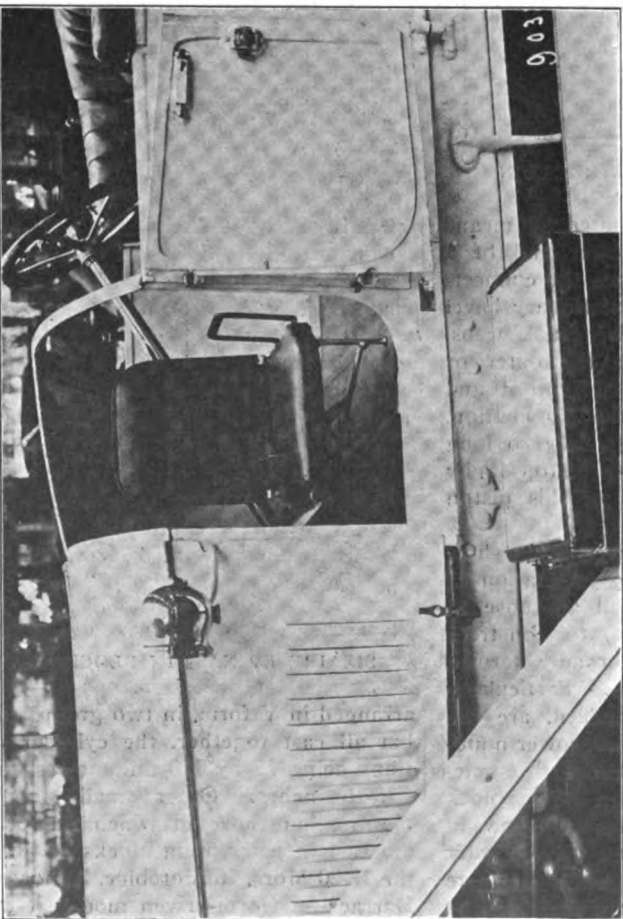
THE NEW COTTERAT "VALVELESS"



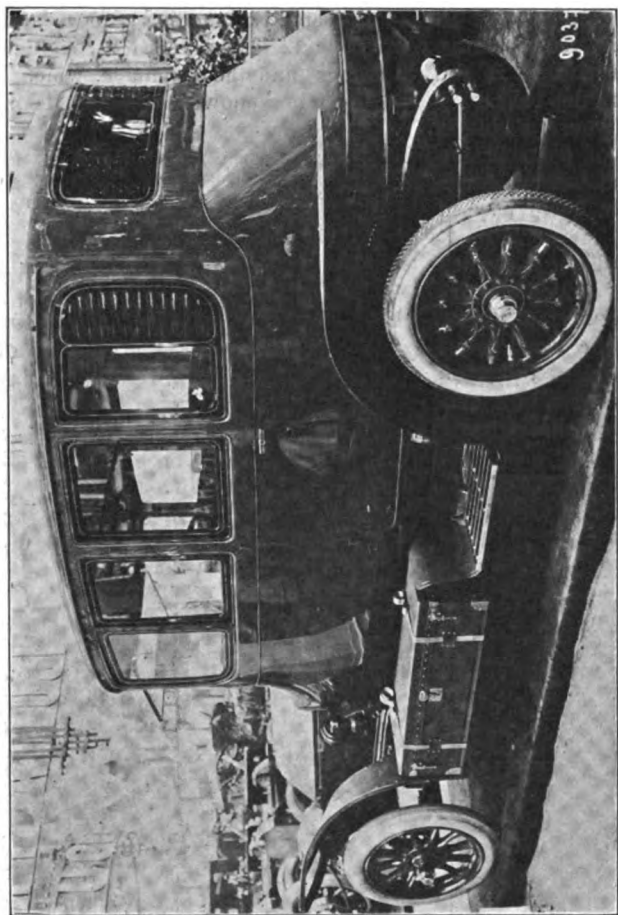
SIZAIRE ET NAUDIN BLOCK MOTOR

arranged in V form, in two groups of three but all cast together, the cylinder dimensions being 75 by 120 millimeters, or 3 by 4 13-16 inches. Other small six-cylinder motors, but those in which the cylinders are cast in pairs or in blocks of three, are the 17-20 Mors, 16 Motobloc, 20 horsepower Darracq—a worm-driven model, it may be explained—15 horsepower Clement-Bayard.

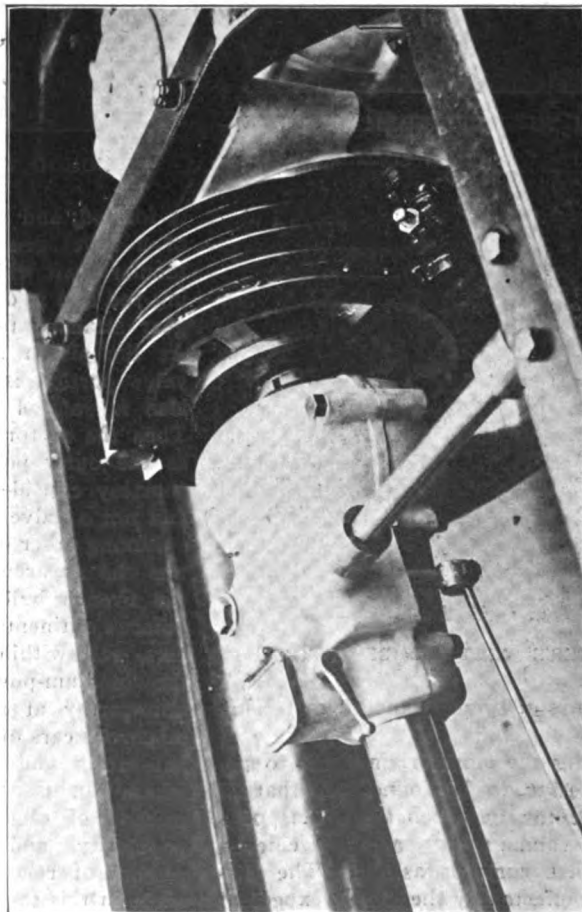
## FOUR OF THE STRIKING NOVELTIES EXHIBITED AT THE PARIS SHOW



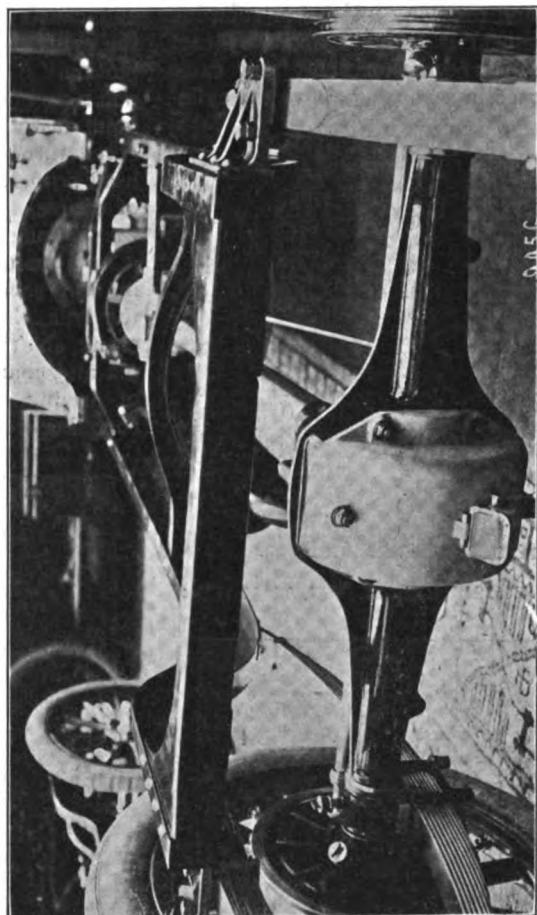
GOBRON RUNABOUT WITH CHAUFFEUR'S SEAT INSIDE SCUTTLE DASH



ELABORATE ROTHSCCHILD "OBUS" BODY ON FIAT CHASSIS



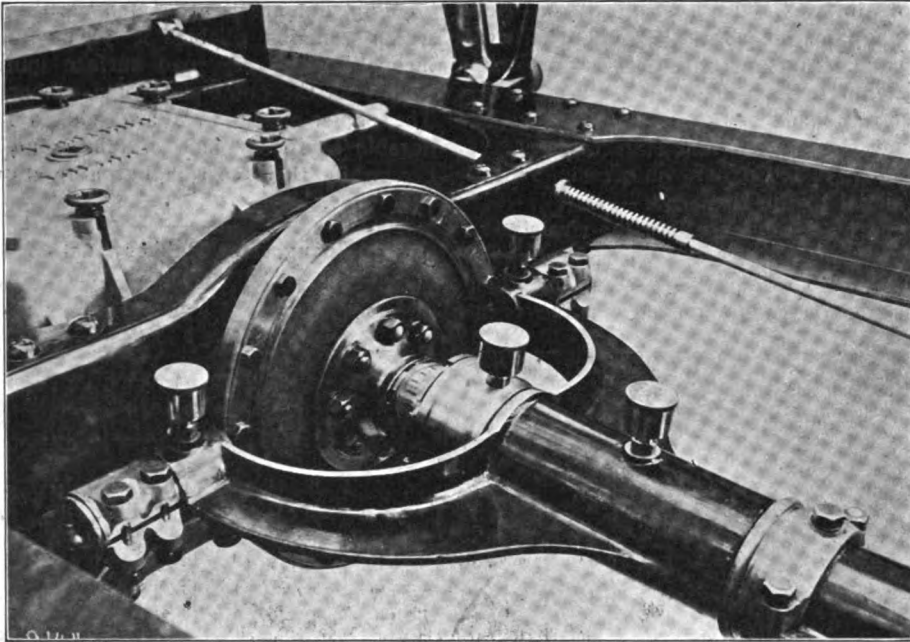
RENAULT UNIVERSAL JOINT HOUSING AND SERVICE BRAKE



RENAULT REAR AXLE MOUNTING WITH UNDERSLUNG SPRINGS



and 12 horsepower Delaunay-Belleville. the latter has cylinder dimensions of 72 by 120 millimeters, or about  $2\frac{7}{8}$  by 4 13-16 inches.



ISOTTA LEATHER DISK UNIVERSAL JOINT CONSTRUCTION

Two marked effects of the new style construction, which is expressed in the popular form of block motor, also are beginning to be apparent in other types as well. One is the desire to secure a "clean" engine by stowing away the auxiliaries as neatly as possible and relieving the exterior of the cylinders of any needless protruberances. The other is to extend the stroke. While abnormally long strokes by no means are the rule, they are also by no means uncommon, while the general tendency seems to be to increase the bore-to-stroke ratio.

Another observation was the periodical decline of the voiturette, which again appears to be passing into obscurity after a season of renewed popularity. The bulk of the European trade appears to be in cars of the medium class all through, and though closed cars continue to gain in popularity, the favorite styles are those in which the entire vehicle is enclosed, whether they afford accommodation for two or more passengers. The torpedo styles of touring car and runabout have come into vogue, and the influence of torpedo patterns is seen in many forms of closed cars.

A remarkable instance in point is that of a Gregoire car, which is built on thoroughly approved marine lines, with a ridiculously small body superstructure mounted in the center in close semblance to the conning tower of a submarine. Another remarkable achievement of the body-maker's art is the 120 horsepower Pipe, the front of which slopes from a point immediately above the driver's head to the dash, thus giving the machine the appearance of having just come through some dire catastro-

phe in which its front portion had been sadly crushed. A body which is far more appealing, if somewhat less striking in its appearance, is the Fiat "obus," which is

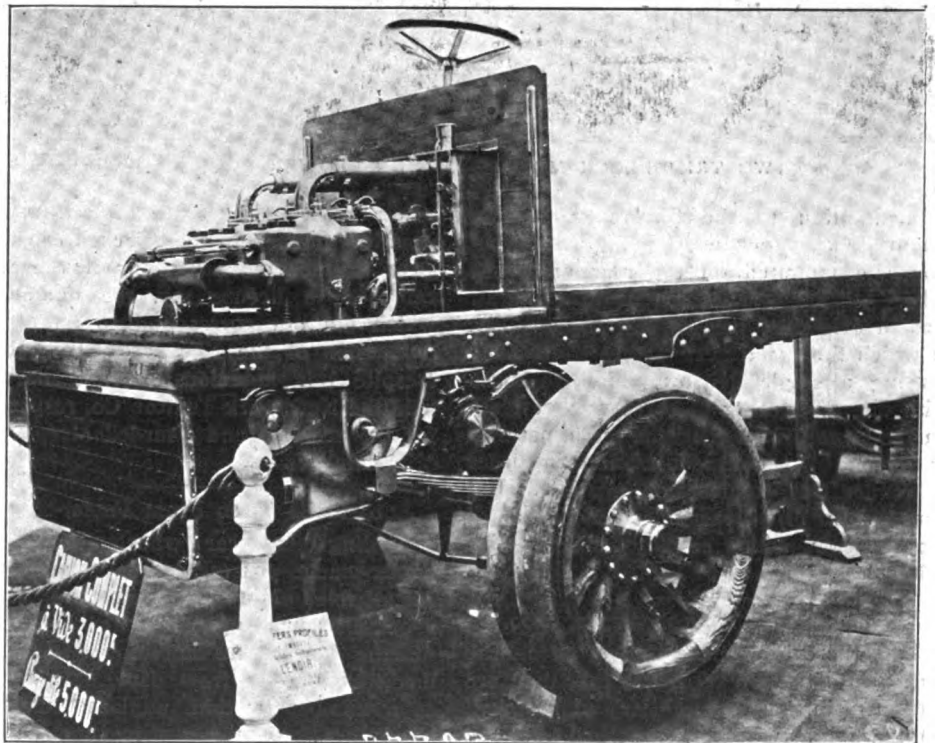
ment type, as distinguished from many of the newer bodies, in which there is but a single door on either side and no dividing partition between the front and back seat spaces.

Among various individual body refinements may be mentioned one particular runabout body, mounted on a Gobron chassis, which is provided with a deep scuttle dash. Under ordinary circumstances there is nothing to indicate that the dash is in any way extraordinary. But when it is desired to carry a chauffeur, one side of the scuttle may be removed, disclosing a neat folding side seat into which a small or medium-sized chauffeur may be squeezed without serious inconvenience, and where he will be handy in case a tire goes down or the engine becomes obdurate.

Ventilated dashes for the enclosed torpedo bodies, electric lights built into the dash or the front of the hood, after a fashion introduced by at least one maker in this country last year, separate spring suspension for the radiator and brass covers for the joints in the steering connections are novel and interesting details that were to be observed on various cars.

The general details of transmissions and other chassis features reveal few striking changes in the new designs. Universal joint construction in many instances has been revised with the idea of obtaining better durability and freedom from wear, and in this connection the Isotta-Fraschini uni-

a Rothschild creation, and which besides being of the most sumptuous order, is built with an eye to cleanliness and freedom from unnecessary windage.



LATIL 24 HORSEPOWER FORE CARRIAGE FOR COMMERCIAL VEHICLES

The Gregoire "aviator" body is strictly a double coach, and has much the same effect as would be secured by mounting two sedan or coupe bodies on the same chassis. Needless to add, it is of the two-compartment

type, as distinguished from many of the newer bodies, in which there is but a single door on either side and no dividing partition between the front and back seat spaces. The Isotta-Fraschini universal is particularly noteworthy. It consists of nothing more complicated than a disk of stiff leather which forms the sole connection between the flanges of the driving and driven members of the joint. Be-

sides allowing perfect flexibility and small resistance, this device has the advantage of being absolutely noiseless.

The new type universals on the latest Renault designs are housed in a neat aluminum casing. The rear springs of the new chassis shown at the Salon are of the three-quarter elliptical pattern, but with the lower or semi-elliptical members slung beneath the axle, thus affording a very low center of gravity. Three-quarter elliptic suspensions, by the way, are growing in popularity.

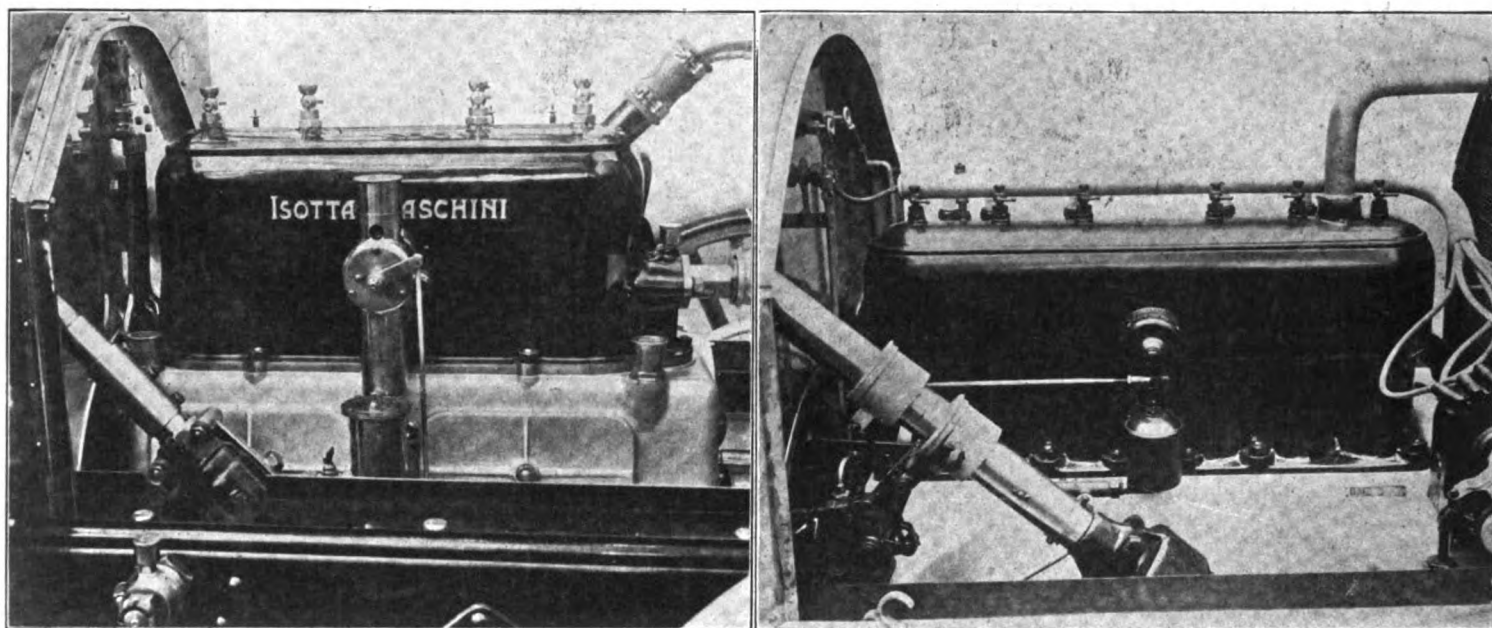
Shaft drive is employed almost exclusively, as is magneto ignition. Thermo-syphon cooling likewise is becoming exceedingly popular, while automatic self-contained engine oiling systems are the rule.

brought out during the examination of witnesses for the defense that the taxicab in which Mrs. Kupfer rode and through the carelessness of the driver on which she alleges to have received scars and other serious injuries, did not belong to the New York Taxicab Co. at all, but to a rival company. And not only is this rival company said to have painted its cabs in the exact red shade of the N. Y. T. vehicles—so cleverly, in fact, that starters employed by the N. Y. T. Co. have on occasions given the signal to the rival cabs—but it is even claimed by the defense that the rivals were so tricky as to tap the wires leading to the N. Y. T. Co. and to send out their own cabs on calls intended for the regu-

lis, and to possess a high degree of resiliency and strength. As the various layers of paper are not saturated with a hardening glue, which would cause the resulting material to become stiff and unyielding, but are impregnated with a resin which remains pliable, it yields to the inequalities of the road surface quite as readily as the outer shoe of a rubber tire. The papier-mache tires are said to be as durable as those made of fabric and rubber, while their cost is but a fraction of the same.

#### Ceylon Inaugurates Rubber Auction Sales.

According to W. C. Magelssen, the American consul at Colombo, the first auction



TWO TRIM BLOCK MOTORS—25 HORSEPOWER FOUR CYLINDER ISOTTA AND 20 HORSEPOWER FIAT SIX

In addition to the Sizaire et Naudin change gear, which is of unique construction and mounted on the rear axle, one other peculiar axle-mounted change gear was in evidence—that of the Miolans car, in which the speed changes are effected by causing a single driving pinion to mesh with one or another of three sets of teeth on the large driven gear, the teeth, naturally, being of peculiar formation in order to render this combination possible. But one friction drive was in evidence, that of the Curicum, which employs the two-disk principle.

#### Tricks in the Taxicab Trade, Too.

That there are "more things 'tween the red sides of a New York taxicab, than are dreamt of in the average user's philosophy"—to paraphrase the immortal bard from the banks of the Avon—was brought out in a suit for damages instituted by Mrs. Annie J. Kupfer, of 14 East 60th street, New York City, against the New York Taxicab Co. The hearing took place before Justice Morrell and a jury in Part IV of the Supreme Court of New York, and it was

labeled "reds." And it was the tell-tale registration number on the wrecked cab which gave the scheme away, for this near-red cab bore a license tag, the number on which did not correspond to any in the possession of the New York Taxicab Co. Despite this ingenious defense, the jury held the New York Taxicab Co. responsible for the accident and awarded Mrs. Kupfer \$400 damages.

#### Automobile Tires From Papier-Mache.

Finding that car wheels made from papier-mache possess great strength and a remarkable ability to withstand sudden shocks, French engineers have just placed on the market an automobile tire shoe made exclusively from paper. It consists of a number of thin, unglazed sheets of paper, cut into proper shape and laid one upon the other, which are impregnated with certain resinous substances and then subjected to enormous pressure. The resulting tire shoe, modeled over a form and snugly fitting over inner tubes of the corresponding size, is said to be absolutely impervious to water, weak acids and alkali-

sale of rubber ever held in Ceylon occurred on November 4 last, when 22 tons were offered for sale.

"The chief factor which has led to the inauguration of the rubber sales is the convenient position of Colombo in relation to the big consuming countries," says Consul Magelssen in his report. "Buyers in these countries already find it convenient to come direct to Colombo for their supplies, and it is interesting to note that by far the largest bidder at the first sale buys chiefly for the United States. Public sales of rubber will be conducted weekly, and it is anticipated that the new departure will meet with the same success as has attended the tea auctions which have been a fixture in Ceylon for many years.

"There are at present 12,000 bearing acres of rubber in Ceylon, while 185,000 acres have been planted. A local writer has estimated that 220,000 acres will be the maximum area planted with rubber in this island and that, with 140 trees to the acre and 1½ pounds yield per annum, this will give an export of 20,000 tons by 1920. The 1909 exports amounted to 681 tons."

**FRANKLIN DEVELOPS A NEW BODY**

**Of the Torpedo Type, It Differs Greatly in Its General Design—Fenders Also of Original Pattern.**

Distinctly original features are embodied in a new torpedo type of car which has been recently built by the H. H. Franklin Manufacturing Co., of Syracuse, N. Y. As may be seen in the accompanying illustration, the new model is characterized by lines quite unusual in automobile construction.

The lines of the body instead of running from the top of the rear seat forward on

inches in size. The wheelbase is 123 inches and the weight 2,750 pounds.

**Rival Truck Dealers Getting Together.**

Steps looking toward the amalgamation of Boston's two associations, of motor truck dealers, the Boston Motor Truck Dealers' Association and the Commercial Motor Vehicle Dealers' Association of Boston, have been taken by both sides since it has been settled that there will be no separate exhibition of motor trucks and that these vehicles are to be shown in the Boston automobile show in February, which was one of the chief causes which led the Boston trade to split into two parts. At recent meetings of both associations, committees were appointed and given instruc-



FRANKLIN'S DEVELOPMENT OF THE CLOSED-FRONT BODY

a straight line to the dash, drop in a sweeping curve and run forward in an upward slope to a wide scuttle dash. The back of the car, which has almost square corners, is a contrast to the familiar rounded back. The hood, after the design of 1911 Franklin bonnets, starts from the level of the chassis frame in front, sloping upward and back to the dash, its lines bending in a wide angle just above the first cylinder. The forward mudguard begins at the running board and slants upward in a straight line to a point above the back of the wheel where it runs ahead again in a straight line to the front of the car. The rear fender is constructed similarly, but the rising part is slightly curved. None of these fenders are flanged. An English Burbank top of the four-bow type is used, having two bows in front, one vertical and one horizontal.

The chassis is the same as that of the 1911 model D torpedo phaeton. The motor develops 38 horsepower, is air cooled, and has six cylinders, 4 x 4 inches, cast separately. Three speeds forward and one reverse are secured in the selective transmission. "Q. D." tires, 36 x 4½ inches are used on the front wheels, while 37 x 5 inches are used on the rear. Both the front and rear springs are full elliptic and 40 x 1¼

tions to meet the committee from the other association and reach, if possible, some common ground upon which all the truck interests of the city can unite. The committee from the Commercial Motor Vehicle Dealers' Association consists of L. B. Butler, agent for the Rapid; G. P. Dennett, of the D. P. Nichols Co., agent for the Frayer-Miller and A. B. Cummer, manager of the Boston branch of the Autocar Co. The committee of the Boston Motor Truck Dealers' Association consists of Arthur P. Underhill, agent for the Knox; A. B. Henley, manager of the truck department of the D. P. Nichols Co., agent for the Frayer-Miller, and J. H. McAlman, agent for the Stearns and Columbia. These conciliation committees will meet and will report back to their respective associations next week, when it is hoped that some mutual agreement will have been reached.

**Demand for Front Doors Becomes General.**

According to trade reports, the call for closed-front touring cars has become so general as to cause some embarrassment in not a few factories. Many dealers are insisting that front doors be applied to even the low-priced cars, and in a number of instances refused to accept other deliveries.

**TWO-CYCLES AND THE THROTTLE**

**Duryea Takes Issue With Kettering—Claims They Are Responsive and Offers to Prove It, Too.**

That two-cycle engines, when properly designed, are responsive to throttle control in almost the same way as motors of the four-cycle type is a fact that is not generally appreciated by those whose experience has been chiefly with machines of the latter order. In defense of this point Charles E. Duryea, the veteran inventor and automobile manufacturer, takes exception to a remark made by C. F. Kettering in a discussion of the ignition problem printed in these columns. The latter advocated the use of a battery system for two-cycle engines "because all the regulation must be done by spark advance." It is to this expression that Mr. Duryea objects.

"I know it is often assumed that the two-cycle engine is less flexible than the four-cycle, and that in the case of engines built for a fixed speed, as is the usual boat engine, this is true," he remarks. "But that it is an inherent defect I deny," he goes on to assert, "and if Mr. Kettering, or any other non-believer, will favor me with a visit I will set the spark well forward and do all sorts of stunts on the high gear, from climbing 14 per cent. grades to following a funeral procession or bouncing over our rough roads as fast as he wants to go in a short base, solid tired rig; controlling absolutely by the throttle, just as nicely as any four-cycle.

"Do not understand from this that juggling the spark is not proper on a two-cycle. The spark should be set according to the speed, but that 'all regulation must be done by it' certainly is wrong.

"As to comparing magneto and battery on the two-cycle, I use battery and a single spark device. But the hot magneto spark cannot be beaten if one is willing to carry the extra moving parts."

**When Reverse Gear Will Help Up Hill.**

The hill climbing ability of a car is a quality which always does not show itself to advantage, particularly in cases when the motor is in bad repair as regards compression or mixture, or if, as in many cars of the roadster type, a gravity feed tank is set so low and the supply of fuel so nearly depleted that the gas will not run to the carburetter. If the machine is stuck then it is well to turn the car around and go up hill on the reverse. As in nearly every car the reverse is geared lower than the first speed, the motor in such cases has more pulling power than when the car is going forward. If stuck, on account of the low level of gasoline in the tank, reversing the car obviously overcomes the difficulty.

## FOR INCREASED SPEED IN NEW YORK

Another Ordinance Designed to Alter Absurd Limit—District Attorney Favorable and Adoption Likely.

Once more an ordinance to increase the rate of speed at which vehicles legally may be driven on the streets of New York is pending before the board of aldermen. It was introduced on Tuesday last, 20th inst., by Alderman Johnson, and as it has the support of District Attorney Whitman, its chances of adoption seem fairly good.

The ordinance provides that automobiles shall not be operated in streets less than 150 wide at a greater rate of speed than 15 miles an hour, and in streets wider than 150 feet at a rate to exceed 20 miles an hour. The repeal of the law limiting the speed to eight miles an hour in congested districts is provided for, and the vehicles of the Police and Fire Departments, ambulances, trolley cars, United States mail wagons and railway-repair wagons are exempt from the limit.

In voicing his opinion of the new measure, District Attorney Whitman has said that inasmuch as the Police Department has never made arrests for speeding, even when the State law was 10 miles an hour, unless the vehicle was traveling at least 15 miles an hour, and that the average speed of automobiles on Fifth avenue has been found to be 16 miles an hour, he thinks that the ordinance would be a benefit to the city, and indeed that it is necessary to relieve the congestion of traffic and permit its proper regulation. The present speed limit of eight miles an hour in congested districts is not and never can be enforced, and long has been a standing joke.

For nearly 20 years periodical efforts have been made to increase the limit, but always without success. In the heyday of the bicycle and since the automobile came into extended use, ordinances have been offered and public hearings held, but invariably the West End Taxpayers' Association, or other similar organizations, have raised a loud voice of protest, and had sufficient influence to defeat the object sought.

The proposed ordinance which is in the form of an amendment to sections 454 to 457 inclusive of the Code of Ordinance, is as follows:

**Speed of Vehicles**—The following rates of speed through the streets of the city shall not be exceeded, that is: No person shall operate in the public highways of the City of New York, where the buildings fronting thereon are less than 150 feet apart, any bicycle, tricycle, velocipede, motorcycle, motor tricycle, motor delivery wagon, vehicle drawn by horses or other animals, or any motor vehicle, however propelled or constructed, at a greater rate of speed than one mile in four minutes.

But where the buildings fronting on such highway are more than 150 feet apart, no person shall operate any such vehicle at any rate of speed which is greater than one mile in three minutes. Provided that nothing in this article shall apply to the apparatus and wagons of the Police and Fire Departments, nor to any ambulance, traction engine, road roller, emergency repair wagon of street railroads or other public service corporations, or such vehicles as run only on rails and tracks, nor to vehicles carrying the United States mail.

No person shall in the places mentioned in the foregoing section operate any vehicle across any street or avenue going north or south or upon approaching or crossing any bridge, dam or steep descent, or around or upon any turn or curve at a greater rate of speed than one mile in ten minutes.

Any person violating any provision of this or the foregoing section shall be punished by a fine of not more than \$100, or imprisonment for not more than thirty days, or by both such fine and imprisonment.

All complaints for any violation of this article shall be made to and shall be heard and determined by any City Magistrate of the City of New York.

Nothing in this article contained shall be so construed as to limit or impair the jurisdiction and authority of any City Magistrate to hold to answer or discharge any person charged before him with a violation of Section 287, of Chapter 374 of the Laws of 1910, or of any of the sections or provisions of said chapter.

Articles II. and IX. of the Code of Ordinances of the City of New York in force on January 1, 1906, are hereby expressly repealed.

### How Car Washing Affected the Magneto.

"I had quite a time getting my engine to run properly one morning last week," remarked the all-the-year motorist. "I had gone early to the garage, where the car is housed, and after going through the usual preliminaries started the motor. It ran for about 10 seconds on two cylinders, hit three, back-fired and died. I tried it again with almost the same result, only she ran a little longer this time. Then I raised the hood and started a 'personally conducted.' Everything looked good to me, and I started her again, but this time I left the hood up and found my trouble. My hood is like any number of others with vents in their sides and the fool washer in the garage, being accustomed to turning the hose over the hoods of the other cars in the garage, none of which have vents in them, had done the same to mine and flooded the magneto. Most of the water had evaporated by the time I got there in the morning, just sufficient remaining to be invisible to a cursory glance and still enough to short circuit a couple of the high-tension leads. The washer got a call and I got a magneto cover. Since then I have had no trouble from this source, although a somewhat similar experience was caused by rain being sucked in through the radiator by the fan and thrown over the plugs and wires. The effect was almost the same as in the former case."

## OLDFIELD'S CREW IS RULED OFF

All Who Had to Do with Los Angeles Meet Are Punished—Norfolk Offenders Also Suspended.

The Barney Oldfield outlaw meet, held at Los Angeles on December 11, has brought its penalty, though it proves hardly as severe as was generally expected that it would be. Although he has repeatedly defied the organization, at a meeting of the Contest Board of the American Automobile Association on Wednesday, 20th inst, the heretofore indefinite suspension of Oldfield was changed to a definite suspension covering a period of only 12 months, to and including January 1, 1912. Also included in the suspension are Oldfield's 200 horsepower Benz, the Prince Henry Benz, the Vanderbilt Darracq and the six-cylinder Knox which were entered and were used at that time. J. Alex. Sloane, Oldfield's manager, and Leslie Henry, the alleged manager of the meet of the so-called Pacific Coast Motor Racing Association, likewise were placed under the 12 months' ban, as was the Ascot Park Track on which the meet was held.

All others who had to do with the affair were given the same 12 months dose, viz: Charles F. Stamps, L. R. Mellus and W. Gray, who acted as officials, and the following drivers and cars: J. R. Kittle and Louis Arms (Cutting 30), Williams (Los Angeles agent for the Petrel), Henry Koch (Durocar), William Carlson (Winton Six), W. H. Faust (Winton Six), Henry Butley (Pope-Toledo, 1905), E. H. Betchel (Parry) and Condit (Los Angeles agent for the Staver-Chicago).

The only exception to the rule was George H. Clark, who drove Oldfield's six-cylinder Knox, who, it transpires, competed under a fake name. He masqueraded as E. Z. Martin, and as a result he has been shelved until January 1, 1913.

At the same meeting the A. A. A. contest board also meted out punishment to all who had to do with the sanctioned race-meet at Norfolk, Va., on December 1, 2 and 3, at which women were allowed to compete. J. E. (Jack) Sheldon, who promoted the affair and who also competed, was suspended until January 1, 1912, as also were Louis S. Hallowell (American), George Edwards (Maxwell and Rambler), Edward Allen (Brush), and the Coburn Motor Car Co., and Bryant, who drove the company's Flanders car.

### Los Angeles 24 Hours' Race is Off.

The 24 hours' race which was scheduled to occur on the Los Angeles Motordrome on Christmas day has been declared off. Lack of entries caused the abandonment of the grind.



**"FREE WHEEL" FOR DYNAMO DRIVE**

**Novel Features of C. A. V. Lighting System Eliminates Cut-Outs—Special Windings to Give Constant Voltage.**

Upon two things which already are quite well known to motorists, depend the success of a complete electric lighting plant on an automobile if the lights are entirely to replace those furnished by acetylene and oil; the first necessity is a dynamo which will furnish a constant current, independent of the speed of the motor; the second, that the accumulators should be charged and discharged automatically. The attainment of simplicity is another important point, as is automatic action, and the driver should not be required to cut in or cut out the dynamo to prevent it from acting as a motor and drawing current from the battery when it is running at low speed.

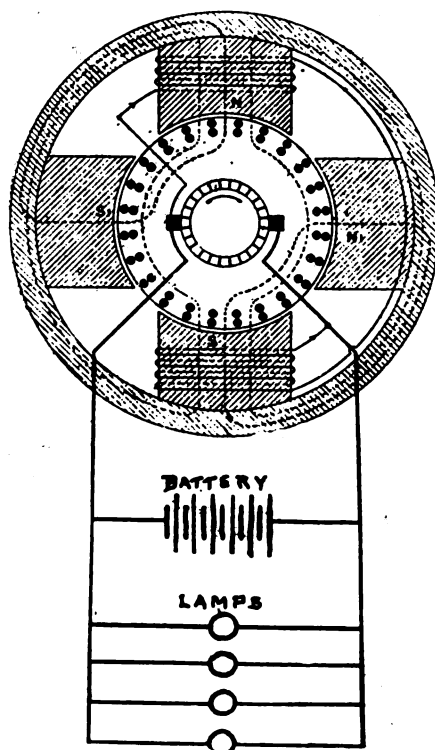
The provision usually adopted to meet the first problem has been a regulating device, sometimes in the form of a speed governor and sometimes an electrically actuated voltage regulator; while the second objective usually has been taken care of by automatic cut-out devices, the result being somewhat complicated mechanisms. The leading systems developed by the manufacturers specializing in this branch of the automobile industry also are reasonably familiar, which is to say that it is known that the extent to which the ideal working conditions have been approached varies greatly, but the progress made during the last year or two is so particularly marked that the prospect of electric lighting becoming a well-nigh universal feature is exceedingly promising.

Among the pioneer firms in the British field are C. A. Vanderwell & Co., of London, who have been making electric lamps for vehicles for several years and which just has brought out a new variable speed dynamo which is distinguished by the entire absence of speed or voltage regulation in the ordinary sense.

The new system is known as the C. A. V. and it is unlike any other system in use, in that the principle of the dynamo construction insures practically constant voltage over a great range of speed without the slightest mechanical intervention. The elimination of anything in the way of an automatic switch, which has been used heretofore to prevent draining the battery, has been accomplished by the simple expedient of providing the dynamo itself with a "free-wheel," or ratchet coupling, which allows it to continue running, but as a motor instead of a generator, when the engine speed falls enough to cause a reversal of current flow between the generator and battery. At such times its con-

sumption of current is exceedingly small, as the armature turns idly in its bearings, and it is thought that the energy used in this way is more than compensated by the saving in mechanical and electrical complication over any of the various other systems.

Without some such provision, of course, the battery rapidly would be wasted. At very low engine speeds, it may be explained, the voltage generated by the dynamo would be lower than that of the battery, even with a machine giving a substantially constant current at higher rates of revolution. Under such conditions current would flow from the battery to the dynamo, instead of from the dynamo to the battery. The dynamo thus would act as a motor, and instead of generating cur-



SHOWING PRINCIPLES OF C. A. V. SYSTEM

rent itself it would absorb current from the battery and would tend to drive the engine. The ordinary way of providing for this contingency, of course, is to interpose some form of cutout switch which will open the circuit when the engine speed falls below a certain minimum, and close it when the speed again increases.

The C. A. V. method, as already indicated, overruns its drive at such times, the motor effect employing only such energy as is necessary to overcome the friction of the armature bearings. One admitted drawback to the arrangement is that, should the engine be stopped without cutting off the ignition, the dynamo motor would go on running indefinitely. This is not considered a serious disadvantage, however, inasmuch as the only effect would be to discontinue, is to permit the armature shaft to charge the battery at a slow rate, the

charge being immediately replaced when the engine again was started.

The distinctive portion of the system is the method of winding the dynamo, which is applied in a manner which is, so far as is known, entirely original in its details. Briefly, the field is composed of four poles, two of which are wound and two unwound. The armature is so arranged that certain coils constantly are being short-circuited, the result being to cause a partial suppression of the natural magnetizing effect of the field. As this counter magnetization is proportional to the speed of the armature, as is the natural tendency of the field to increase, the two effects are counterbalanced and the voltage output is rendered substantially constant within a wide speed range. So close is the automatic regulation attained by the means that it is said that from 1,500 to 4,000 revolutions per minute the output will vary barely one volt, the range being from five to six volts.

As to the general construction of the dynamo, the accompanying illustrations indicate it somewhat in detail. There are four magnetic poles, as just mentioned, two "ordinary" poles, N1 and S1, and two "subsidiary" poles, N and S, as they are termed. The windings, which are connected in parallel with the armature, excite the latter in the usual manner. The armature is drum-wound and the windings the helically staggered, so that those immediately under the subsidiary pole-pieces are in communication with the brushes on the commutator ring, the magnetic flux from their two windings passing diametrically from one subsidiary pole to the other, and, dividing right and left, returning through the frame of the machine, as indicated by the dotted lines. A good idea of the precise manner in which these poles are arranged is given in the illustrations, showing the relative form and positions of the different principal elements of the machine.

As may be seen, the collecting brushes are so wide that they continually cover two of the commutator sections, thereby short-circuiting certain coils, which in the diagrammatic illustration may be distinguished by eight large black dots immediately under the poles N and S. Instead of being in a neutral, non-magnetic zone, as in the case of the ordinary dynamo, these short-circuited coils are situated in a region of great magnetic activity, as they are cutting the lines of force produced by the subsidiary coils, N1 and S1. The short-circuit currents produced by these coils "cross-magnetize" the armature, and set up a magnetic flux at right angles to that of the subsidiary poles, which effect is greatly enhanced by the presence of the unwound ordinary poles.

As a result, instead of pursuing the normal path, traced by the fine dotted lines in the illustration, and passing from one subsidiary pole to the other through the



armature, the previously existing magnetic flux is distorted and passes only half way through the armature and turns aside, as shown by the thicker dotted lines, thus having a quadrantal path. As the speed of the engine increases this change of flow takes place gradually.

While this effect is being accomplished, another force is at work, for the coils of the armature which are not short-circuited are producing current in the usual way, this being collected by the brushes and delivered either to the batteries or the lamps, as the case may be. A magnetizing reaction is also possessed by this working current, which directly opposes the magnetization of the subsidiary poles, and, as the

minerals being instantly visible and accessible by removing the cover on the front. The fuse, its purpose already described, is of the spring-clip pattern. For the two smaller types of dynamos for use on small cars, a less expensive form of rotary controlling switch is provided. This has positions for lights on with the engine running, or stopped, and also an "off" position. With this switch the lights are either all in use or all out, but it forms an effective and cheap means of control for use where the refinements of the more complete switchboards are not needed.

By the use of special cables, all joints are avoided in the wiring system, these cables running from each component di-

furthermore, being differently colored to assist in tracing through the various circuits.

In connection with this system there is another useful fitting in the form of a chassis terminal board, for use on cars with interior lights. It is fixed to the chassis, the leads from the switchboard being attached to one side and the wires for the interior lamps to the other. In case it is desired to remove the body from the chassis, it is necessary only to release the conductors at one side of the board, the major part of the wiring system remaining undisturbed.

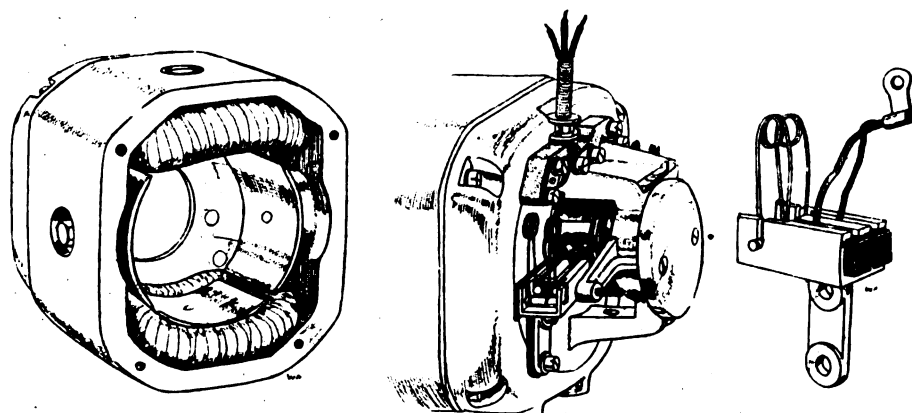
The C. A. V. line includes three standard sizes of dynamo, and with certain differences in winding constitute five distinct models. The smallest has a weight of about 16 pounds and is supplied to give its 5 amperes at 4 volts or at 6 volts, according to whether it is to be used for small car work or for cars of practically as low power that do not need very powerful headlights. An intermediate size weighs 22 pounds and gives its 5 amperes at 12 volts. This is intended for ordinary touring cars with powerful headlights, together with the usual smaller lamps. The larger model, weighing 32 to 33 pounds, is wound to give the same output as the intermediate, but at crankshaft speed, instead of 50 per cent. faster, and also is wound to develop 8 or 10 amperes when driven at the same speed as the intermediate model.

#### Paris Introduces Disinfecting Vehicles.

Traveling disinfecting "chambers" recently have been introduced in Paris by the French Public Health Department, and are used by the sanitary authorities in dealing with infectious diseases. Each "chamber" consists of a standard automobile chassis upon which is mounted a large box-like body which is divided into two compartments, the larger of which is for the reception of clothing, mattresses, pieces of furniture and other objects which may have become germ infected. The smaller compartment is beneath the larger, and contains the apparatus by which the formalin vapor used in fumigating is generated. A third compartment underneath the chauffeur's seat serves to hold the special germ-resisting clothes which the sanitary officers use when working.

#### Regal Adds a "40" to Its Line.

The Regal Motor Car Co., of Detroit, has added a 40 horsepower model to its line; it lists at \$1,750. The newcomer is substantially an enlargement of the Regal "30." The dimensions of its four-cylinder motor are  $4\frac{1}{2} \times 5$  inches; its wheel base is 123 inches. In respect to mechanical details it importantly differs from the "30" chiefly in that in the latter the clutch is held in engagement by one large spring, while in the new "40" three small springs serve the purpose.



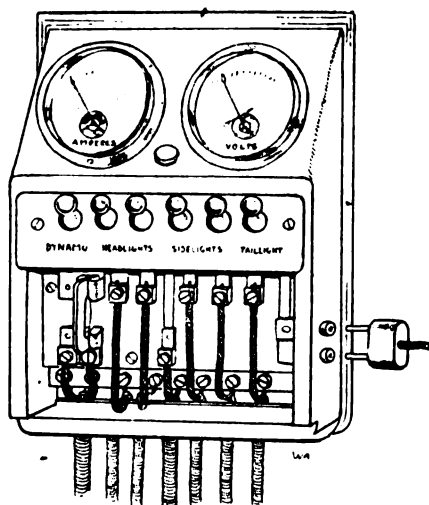
VIEWS SHOWING MECHANICAL CONSTRUCTION OF C. A. V. GENERATOR

demagnetizing reactions increase in proportion to the speed, the natural tendency of the output of current to increase with the speed is directly opposed, the result being the generation of a sensibly constant current.

A peculiar feature of a dynamo constructed in this way is that it will tend to run equally well in either direction if symmetrically constructed, and also that the current will not be reversed when the direction of rotation is altered. In the automobile type, however, this peculiarity is of no particular value. A fuse is introduced in the field magnet circuit, this precaution being taken on account of the fact that if at any time the dynamo were to be run at speed with no battery or lamps in circuit there would be a risk of overloading the field windings and even of burning them. As far as operation is concerned, it is merely necessary to operate a single switch connecting the dynamo with the battery.

Except for the lamps and their connecting wires, the switchboard is the remaining factor in the system, as shown in one of the illustrations. It contains all the necessary switches and instruments, including a voltmeter and an ammeter, there being separate switches for the dynamo, both headlights, both side lights and tail light, and a plug socket for connecting an inspection lamp. There are no hidden connections, all the conductors and ter-

rect, to separate terminals on the board. The conductors are of original design and are of flexible armored form, the wires being insulated by a special medium from which the use of rubber is eliminated. The protective armor consists of a single wire



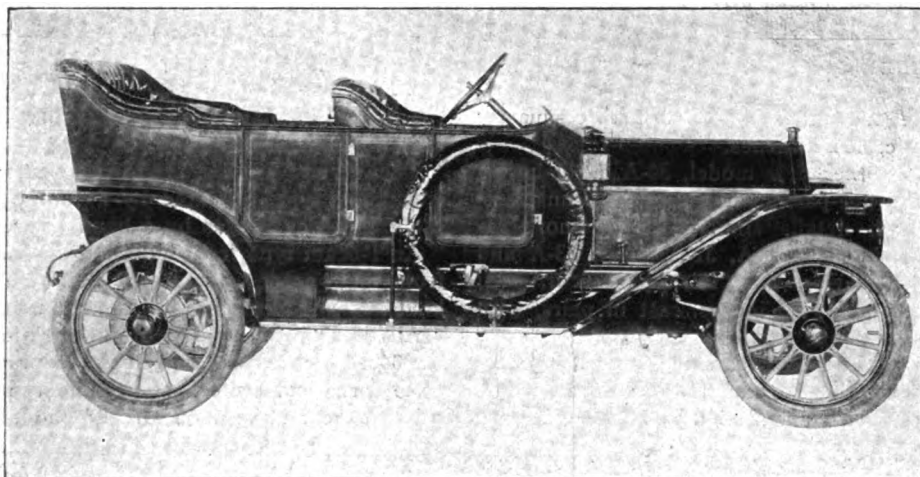
THE C. A. V. SWITCHBOARD

wound spirally around the cable from end to end. Thus it is not only extremely flexible, but is more than able to resist any mechanical friction which it is liable to experience, while the insulation is such that any number of wires may be enclosed in the one protective covering, each cable,

## TWO NEW INTER-STATE MODELS

More Power and Several Marked Departures in One of Them—Line Now Comprises Seven Models.

Incorporating many of the well-known features of the Inter-State "40," two new models have been added to the extensive line of the Inter-State Automobile Co., of Muncie, Ind. The most striking departure from their product as heretofore is a new 50 horsepower torpedo type touring car, model 35, which has a seating capacity of seven passengers, and sells for \$2,700. This car is fitted with the popular front doors, and has exceedingly ample accommodations. For use as a five-passenger car, the two adjustable seats may be removed and



INTER-STATE 40 HORSEPOWER TORPEDO TOURING CAR

the body outline is such that the car presents no unwieldy or clumsy appearance.

The other new car, model 34-A, is a 40 horsepower, five-passenger torpedo, selling for \$2,000. A neat scuttle dash, aprons between the running board, fenders and frame, rear spring hanger covers and a straight line effect are the features of the body design. The levers are placed inside the body and all latches are concealed.

Other models included in the line for the coming season are: 30-A, a five-passenger touring car, \$1,750; 32-A, a single-rumble roadster, \$1,750; 33-A, a double-rumble roadster, \$1,750; 34, a four-passenger torpedo, \$2,000; 31-A, a four-passenger small tonneau, \$1,750.

The new model 35, the 50 horsepower car, differs mechanically from the other models in that the motor is of the "T" head instead of the "L" head type; also in that a new form of transmission is used instead of the type which was original with the Inter-State and was somewhat out of the ordinary.

The motor is cast in pairs with cylinders  $4\frac{3}{4} \times 5\frac{1}{2}$  inches, and the inlet and exhaust valves are located on opposite sides. The

valves, which are extra large,  $2\frac{3}{4}$  inches in diameter, are very accessible, and they can be rotated easily by a brace from above. A new feature also is the exact meshing of the timing gears, which is obtained by the use of eccentric cam and pump shaft bushings. The three-point suspension is used in the hanging of the motor.

Reliable ignition is assured by the use of two separate and distinct systems on all models. One consists of dry batteries, a four-unit coil with timer and separate plugs. The second consists of an imported U. and H. high-tension magneto, in connection with another set of spark plugs. The magneto is supported on one side of the crank case and connected to a gear-driven shaft, driving also the two pumps.

Departing from their usual method of lubrication in this 50 horsepower model, a gear pump of the distributing type is used.

This provides a positive and equal flow of oil to the three main bearings. The overflow from these bearings runs into the splash compartments of an oil pan, and the oil is splashed and picked up by pockets on the connecting rods, distributed over the connecting rod and cam-shaft bearings and the walls of the cylinders.

The system of lubrication of the 40 horsepower differs somewhat from the "50," in that it is accomplished by means of a constant level-splash system, actuated by a gear-driven pump located on the crank case between the pump and magneto. The pump forces the oil from the reservoir, which has a two-gallon capacity, to the bearing surfaces, the excess returning by gravity to the reservoir. A sight feed on the dash indicates the amount of oil flowing. This system of lubricating is not only very simple and accessible, but very efficient and positive in operation.

Water forced by a gear-driven centrifugal pump through a cellular radiator and the jackets effects the cooling of the motor in all models. There are but two hose connections, and the system is so designed that each cylinder receives a uni-

form quantity of water. A belt-driven fan forces air through the radiator and over the motor.

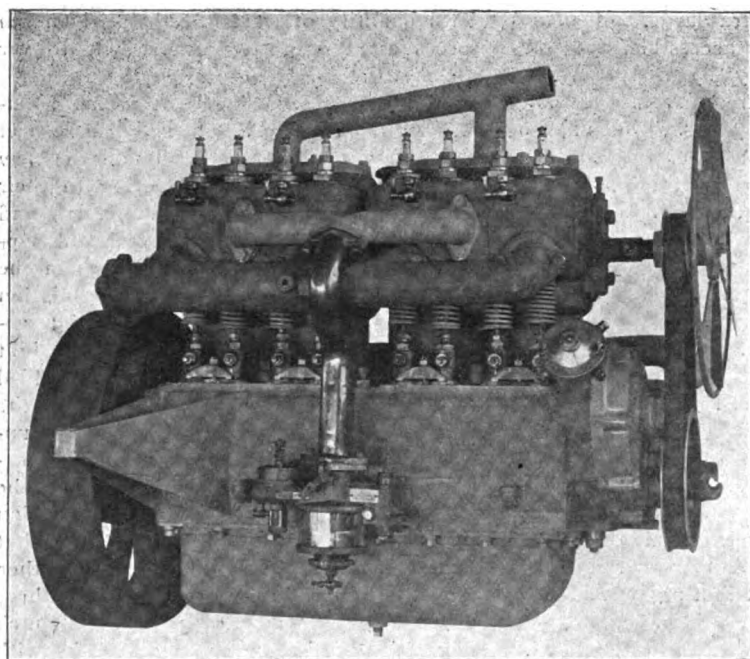
The most radical departure from the familiar Inter-State chassis, except in respect to motors, is the transmission in the new model "35." Instead of adhering to their usual form where the gearset, clutch and tongue tube are formed integral and supported at the forward end only, as in the other models, the clutch and transmission housing are supported by a three-point suspension which obviates strains that might be transmitted from the frame. An added cross member to the frame supports the rear of the housing, as the front is supported, and the universal joint of the propeller shaft, together with the tongue-tube yoke, which is hinged. The transmission and clutch are of unit construction, but larger in size than those in the other models. The sliding-gear type allows three speeds forward and one reverse. The clutch is multiple disk, having bronze disks with 32-cork inserts placed between disks of hardened steel. These are of a large size and provide ample wearing surfaces. The engagement is gradual, easy and positive.

The 40 horsepower transmission and clutch are the familiar Inter-State unit type, and, as heretofore, are contained in a single case with separate compartments, permitting the use of different oils suited to either the clutch or gear sets. The construction is very substantial and access easily gained to all parts. The transmission is of the selective type, allowing three speeds and reverse. The gears are made of chrome-vanadium steel and are of extra heavy pitch, having five pitch teeth. Any unintentional passing through the neutral position when shifting the gears is obviated by the use of a double locking device to hold them and the levers in position. The clutch is an improved cork insert design, operating in oil in a separate compartment of the transmission case. A ball thrust employed between the clutch and throw-out fork and collar obviates the wearing of these parts.

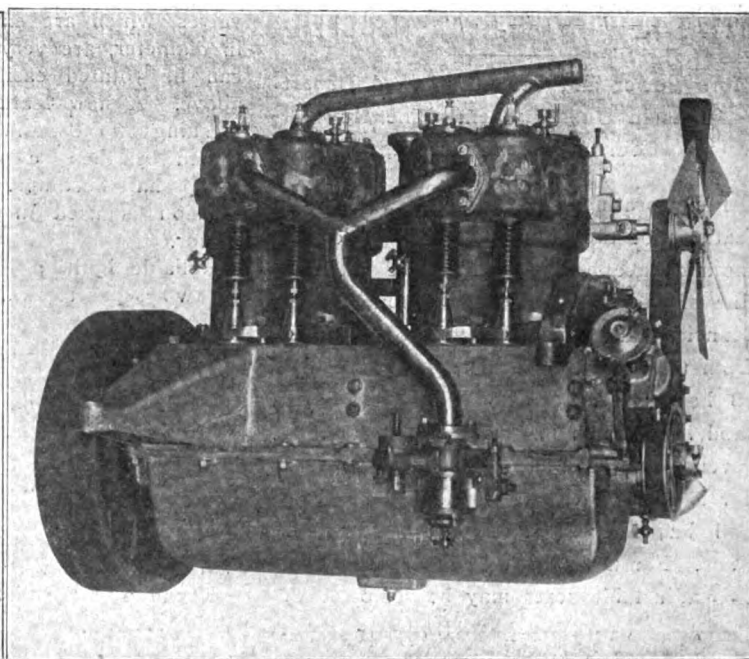
A rear axle of the full-floating type is provided for model 35, with adjusting sleeves and thrust bearings for adjusting the drive gears which are very accessible. Imported annular bearings are used throughout the construction. The pinion shaft is mounted in the rear axle differential housing to insure perfect alignment. The entire differential may be removed through the opening in the rear of the housing. The torque tube eliminates the necessity of distance or torsion rods or bars.

At the front of the frame a taper-in is made to provide for turning the car in a small space, and, over the rear axle, the members of the frame are raised to allow a more free action of the springs and to bring the body nearer to the ground.

Both the emergency and service brakes



INTER-STATE 40 HORSEPOWER ENGINE



THE NEW 50 HORSEPOWER INTER-STATE MOTOR

are of the internal expanding type on this new model, the brake bands of the service brakes being  $16 \times 2\frac{1}{4}$  inches on the face, and the bands of the emergency brakes being  $12 \times 2\frac{3}{4}$  inches on the face, and both are made of vanadium steel.

The front axle on this model is a one-piece drop forging. Steering knuckles are mounted on case-hardened bolts, and they are provided with a ball-thrust bearing to make turning easier. Springs,  $40 \times 2$  inches, of semi-elliptic pattern, are used in front,

while the rear springs are three-quarter elliptic,  $48 \times 2$  inches.

The other new model, 34-A, a 40 horsepower, five-passenger torpedo, is constructed with details similar to the more familiar models, 30-A, 31-A, 32-A, 33-A and 34, all having the "L" type motor, with cylinders  $4\frac{1}{2} \times 5$  inches, cast in pairs, with valves on one side.

A semi-floating rear axle is used in these models, and is mounted on Hyatt bearings. The transmission is bolted direct to

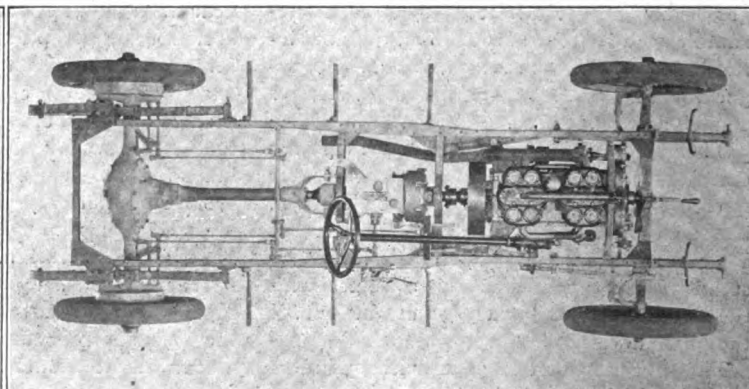
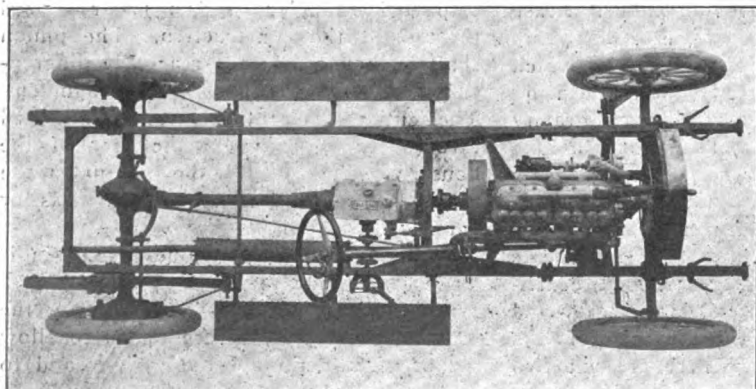
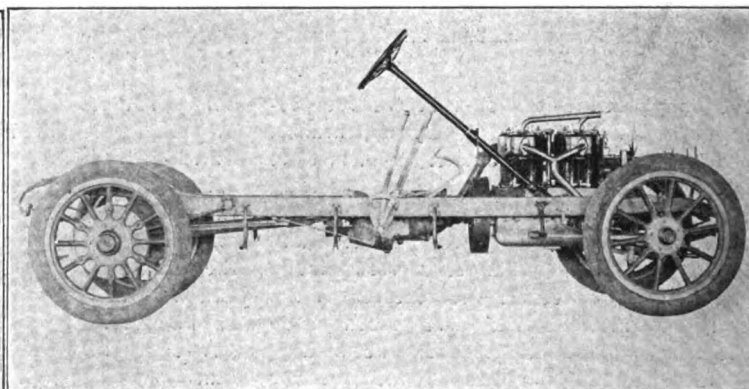
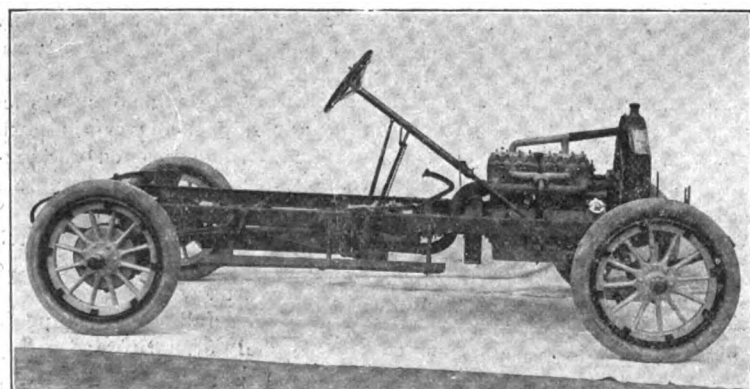
the propeller-shaft housing, making it a unit with the rear axle.

The service brakes are of the internal expanding type, operated by a foot pedal, the emergency brakes by a hand lever.

An I-beam type front axle is drop forged from high-grade steel, and the steering knuckles and arms are of vanadium steel.

All tires on the models of 40 horsepower are  $34 \times 4$  inches, with wheelbase 118 inches.

A worm and sector, irreversible type of steering gear is used on all "40" models.



SIDE AND PLAN VIEWS OF INTER-STATE 40

SIDE AND PLAN VIEWS OF INTER-STATE 50

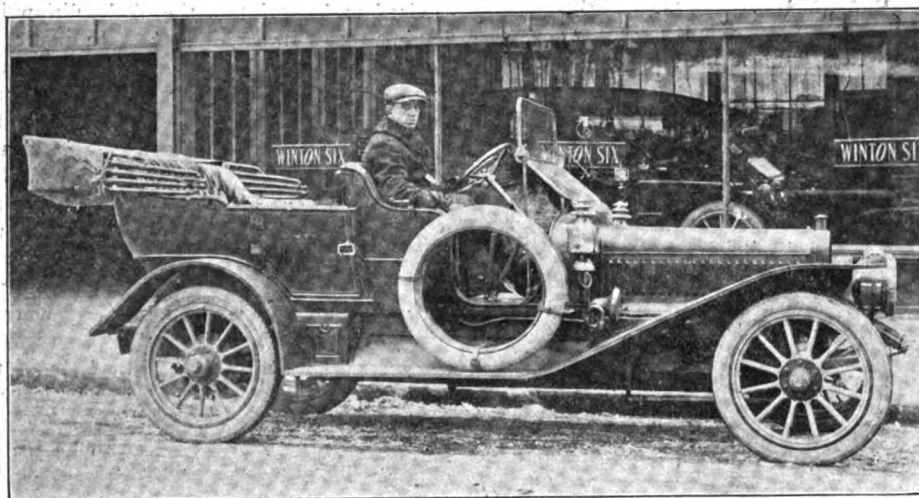
## SKILFUL DRIVING EARNS REWARDS

Minneapolis Chauffeur Wins Winton's Up-Keep Contest—Tall Mileage at Trifling Cost.

The "ghost" raised by a certain gentleman who was heard to remark that "one chauffeur can bankrupt two bankers and often makes more than his employer ever did," has been "laid" for good and all, and hereafter that gentleman's remarks will be taken cum grano salis. Even though the "ghost," which represents the supposedly high cost of maintaining an automobile, exists chiefly in the mind of the average

received fourth prize—\$150—his 17,130 miles having cost his employer nothing for repairs.

Other drivers in the "no-expense" class were Charles E. Rice, driver for L. T. Peterson, of Youngstown, Ohio; John T. Wilson, driver for W. B. Martin, of Cleveland, Ohio; Michael Stone, driver for H. M. Cheney, of Toledo, Ohio, and William G. Hyatt, driver for S. S. Booth, of Los Angeles, Cal., each of whom received \$100, which represents sixth, seventh, eighth and ninth prizes, which were won with 15,790 miles, 14,847 miles, 14,059 miles and 13,526 miles, respectively. The fifth prize, also \$100, was won by John J. Boyce, who drove the car owned by Isaac Bacharach, of Atlantic City, N. J., 17,390 miles at a



A. C. LEONARD, WINNER OF THE WINTON UPKEEP CONTEST

motorist, such fancies must vanish before the upkeep record of the ten drivers of Winton cars, who, between April 1 and November 30 of this year, drove their employers' cars an aggregate of 165,909.9 miles at a total repair expense of \$6.96, and thereby earned the "Christmas money," which the Winton Co. annually dispenses for the ten best records made during that time.

A. C. Leonard, driver for W. T. Bonnell, of Minneapolis, Minn., was the most successful of the ten in keeping down the expense of upkeep; he drove 21,127 miles during the period at a total repair cost of \$1.40, and received the first prize—\$1,000. Particularly notable is the record made by G. W. Butler, driver for J. E. Denny, of Chicago, who received the second prize—\$500. Butler won the 1909 contest, and finished ninth in 1908, his total of 41,173 miles in these three years with the same car representing an outlay of 30 cents for repairs, the expense being incurred this year when he drove 19,015 miles. The third prize—\$250—went to P. W. Mulford, driver for W. J. Friedlander, of Cincinnati, Ohio, whose total expense for 18,809 miles was 30 cents, and William E. Ochsie, driver for Martin Daab, Hoboken, N. J.,

repair expense of \$3.46. Guy C. Davis, driver for Horace J. Phipps, of Boston, Mass., won the tenth prize—\$100. His mileage was 14,208, and his repair expense was \$1.50.

The contest is open to all employed drivers of Winton Six cars. They are required to make monthly reports of mileage and expense, such reports being attested by the owners. At the end of the contest both drivers and owners are required to supply affidavits substantiating all reports.

#### Discrimination, Coney Island Variety.

Automobile owners, who have occasion to transact business (or pleasure) in Coney Island, N. Y., are trying to figure out by what method of calculation they are rated as more prosperous or more profligate than owners of motor boats. At least they believe this to be the only explanation of the fact that a motor boat owner can run his craft into the rear of a certain place on the island and buy all the gasoline he wants for 12 cents a gallon, while automobilists approaching from the front have to "pony up" 25 cents for each gallon of the needful. The quality is the same in both cases.

## LOS ANGELES STARTS ITS SHOWS

"Independents," with a Dash of Licensees; Lead Off—Handsome Decorations and a Plentitude of Exhibits.

Following a mammoth automobile parade which took up the greater part of the afternoon of December 12 last, the first annual "independent" show held under the auspices of the Los Angeles Motor Car Dealers' Association in the Shrine Auditorium was fittingly opened by Judge Robert M. Lusk, president of the city council. Though slated as an "independent" affair, a few of the products of licensed manufacturers were in evidence and it was not altogether an anti-Selden show.

Bowers of smilax and festoons of red and green bunting transformed the big building into something akin to fairyland, and even those who had anticipated something out of the ordinary in the way of decorations were agreeably surprised at the beauty of the exhibition as a whole. Smilax strands, in which the electric lights were almost hidden, formed a canopy under which automobiles and accessories were exhibited in booths made of more smilax, colored bunting and potted plants. Viewed from the balcony, the entrance appeared as a tunnel of greenery through which a myriad of multi-colored lights diffused a soft glow. Everywhere there was plenty of room; the aisles were broad and the exhibition spaces were uncrowded, leaving ample room for a leisurely and thorough examination of the cars and accessories. The attendance throughout the week was up to expectations.

Motor cars, motorcycles, tires, parts and accessories were shown by 40 odd exhibitors, 27 makes of gasoline pleasure cars, two makes of electric pleasure cars and seven makes of commercial vehicles going to make up a list of nearly 100 complete cars which filled every inch of available space. The list of exhibitors follows:

#### Pleasure Cars.

Haynes Automobile Sales Co., one Haynes touring car and one polished Haynes chassis; Owen Automobile Co., one Owen and one Marion touring car; Siegmund Motor Car Co., two Schacht touring cars; American Car Co., one American torpedo model; Halladay Motor Car Co., five Halladay touring cars; Hawley & King & Co., four Oakland touring cars; Los Angeles Alco Motor Sales Co., one Alco touring car; Standard Motor Car Co., three Ford touring cars and two Vette touring cars; Morrow, Loomis & Co., one Interstate touring car and one chassis; Staver Motor Car Co., two Staver cars; Bekins Motor Car Co., three Amplex touring cars; Williams Automobile Co., three Petrel cars;



Carrigan Brothers Auto Co., two Pratt-Elkhart cars; California Automobile Co., two Warren-Detroit cars, two Firestone-Columbus cars and two Columbus electric cars; Cutting Car Co., two Cutting touring cars; National Motor Car Co., three National cars; Kissel Automobile Co., five Kissel cars; Burkhard-Crippen Motor Car Co., four Lexington touring cars; W. J. Burt Motor Car Co., two Auburn touring cars; Pacific Coast Motor Car Co., four Fiat cars; Abbott-Detroit Motor Co., four Abbott-Detroit cars; Excelsior Autocycle Co., four Excelsior autocycles; Western Mechanical Works, one Doris touring car; Durocar Mfg. Co., two Durocars; Stanley Steamer Co., one Stanley steamer.

#### Commercial Cars.

The Mission Garage, two Hart-Krau trucks; Hawley C. King & Co., one detached Grabowsky power plant and one Beyster-Detroit delivery car; Gramm Motor Truck Co., three Gramm trucks; Pioneer Commercial Automobile Truck Co., two Randolph trucks and one Reliance truck; Standard Motor Car Co., one Frayer-Miller truck.

#### Accessories.

Standard Oil Co., Zerolene and other lubricants; Hallowell Co., Warner automobile, Martin shock absorber and Earl glass fronts; W. J. Burke Motor Car Co., automobile parts and aeroplane accessories; Western Mechanical Works, Solar Eclipse lamps; Western Rubber & Supply Co., G. & J tires, Miller batteries, Gray & Davis lamps and general accessories; Perkins Wind Shield Co., Perkins windshields; Weinstock-Nichols Co., K-W magnetos, Electrobola head lights; E. A. Featherstone Co., Ball multi-spark plug; Chanslor & Lyon Co., Hartford shock absorbers, "Flash" auto-lighters.

#### Damage That Bumpers Cannot Prevent.

Spring bumpers mounted on the front and sometimes the rear of the car as well, are coming into use rapidly, and where properly mounted serve as a considerable protection to the machine under ordinary conditions. It is important that the driver of a car so equipped shall not allow himself to become overconfident on that account, however. When running through close traffic, particularly when it is made up in part of heavy vehicles, there is constant risk of high tail boards in front and wagon poles in the rear. Both of these evils are of the sort that no bumper will provide against, and the only way of avoiding damage is to be extremely cautious about entering a jam of vehicles.

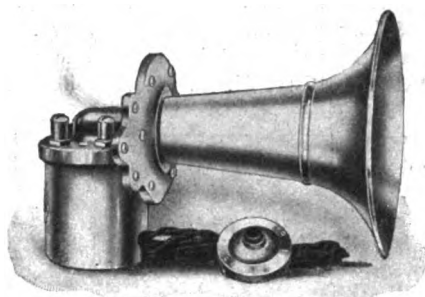
#### Lighter Springs for Easier Cranking.

Although a knack is required to crank a motor, the cranking often can be rendered easier by the substitution of a lighter releasing spring. When the spring is too strong the slightest relaxing of pressure on

the part of the person cranking the engine causes the handle to fly out and disengage itself, necessitating its being turned around and pressed in place again. As a rule a much lighter spring than is commonly used will serve to keep the ratchet out of engagement while the motor is running, while the liberal use of oil will also facilitate cranking.

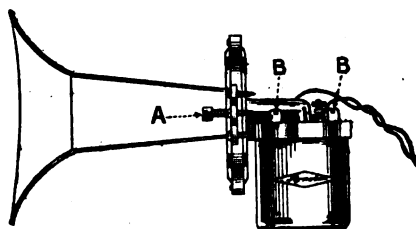
#### Electric Horn Comes from Wisconsin.

As its title signifies, it is not strange that the Standard Electric Works, of Racine, Wis., should engage in the manufacture of



electric automobile horns, and that the horn—the Arnold, it is styled—should be of the sort to merit quick attention, is almost as much a matter of course. The horn, which is magnetically operated, is of the bell-shaped variety, with the container, holding the diaphragm, at the smaller end. All working parts are protected by heavy brass castings, and the horn presents a very good appearance.

Ignition batteries, either dry cells or storage, will operate the horn, as it requires but six volts, and the current con-



sumption is claimed to be but seven-eighths of an ampere. The diaphragm is made of special steel and is struck at the rate of several thousand taps per minute by a case hardened hammer. A series of rapid vibrations are set up, and these are concentrated and magnified by the horn.

The horn may be adjusted by the screw A, shown in the accompanying illustration, while B B are screws to take up wear of the platinum points. The latter require adjustment not more than once a year.

The tone of the horn is of such a character that it can be heard a great distance. It is guaranteed in every particular.

#### Gear Clashing that Spells Lubrication.

When a terrible clash follows an attempt to change gears in a car fitted with a cone clutch, the clutch collar should be examined to see whether this member has run

dry. Usually clutch collars are provided with grease cups which should be kept full and screwed down every couple of hundred miles. Usually these cups are forgotten because they are under the foot-board and not in plain sight every time the hood is raised. If the collar has run dry, the probability is that it has heated and seized slightly, thus preventing the clutch from spinning as much as it should to facilitate easy and noiseless gear shifting. A generous greasing of the collar will obviate the difficulty.

#### Brookes Handbook Brought up to Date.

For the benefit of motorists who like their information arranged in alphabetical order and condensed to pocket dimensions, Brookes Automobile Handbook has been revised and reprinted, the 1911 edition just having made its appearance. In justice to the work it may be said that for the most part clarity of description has not been sacrificed for brevity, as sometimes is the case in pocketbook authority; it is clearly and concisely phrased and fairly complete in selection of subjects. As frequently happens with revised textbooks, however, not all matter extraneous to current practice has been expunged, while some unnecessary space has been wasted on descriptions of appliances or devices that never have attained to common use. The bulk of the material, however, should prove directly useful to the owner-driver, the chauffeur or mechanic, and is so placed as to be readily getatable. The book, which is in true pocket form, bound in limp leather, is one of a series of similar works published by Frederick J. Drake & Co., Chicago, Ill.

#### Adjustment of the Brake Beams.

In cases where brake equalizing beams are carried in slots cut in the side members of the frame, the utmost care should be taken when adjusting them to see that the ends of the beams do not hit the ends of the slot when the brakes are applied. As the brakes are being adjusted, the beam may be thought to have sufficient clearance, but upon being used it may reduce the braking power if the end of the slot is resisting the action of the beam. Dust, mud, rust or heavy grease may oppose unequal resistance also to the movements of the two ends of the beam and thereby introduce considerable resistance to their motion.

#### Small Chance for Trade in Chili.

Because of the absence of good roads, the American consul at Valparaiso does not think there is much chance for automobile sales in Chili, although he admits that the few American cars in use are giving good service and are well adapted to the rough roads and severe grades. There are but 30 machines in Valparaiso and vicinity and about 75 or 100 in Santiago, where the streets are smoother.





## MAXWELLS AND BRUSHES REDUCED

**United States Motor Co. Completely Revises Price Lists of Its Popular-Priced Cars—Reductions Are Substantial.**

On January 1 there will go into effect a complete revision of the price lists of Maxwell and Brush cars the revision being of a very pronounced downward character.

The new figures, it is understood, will be officially announced on Sunday next, but, although carefully guarded, the reduced prices of the Brush line already have leaked out. The runabout has been reduced from \$485 to \$450; the roadster, without equipment, to \$485; the delivery wagon from \$685 to \$650.

The paring of the Maxwell prices will approximate 20 per cent.

As no intimation that the United States Motor Co. contemplated reductions of the sort had escaped, the news that they are about to be made cannot well fail to create something of a furore. The reason given for the lowering of prices is that they represent the attainment of results for which United States Motor Co. was organized, the economies born of concentration and specialization having had their logical effect.

### Organizing Dealers in the Southwest.

The Kansas City Automobile Dealers' Association has undertaken the formation of what probably will be styled the Southwestern Automobile Dealers' Association, some 1,500 letters having been addressed to the dealers in that part of the country, and the responses having been sufficient practically to assure the consummation of the project. The meeting for that purpose will be held during the Kansas City show, which occurs during the week beginning February 27.

### Lovell-McConnell Takes Klaxon Sales.

On December 31st the Klaxon Co., of New York, which has marketed the well known Klaxon horns, will wind up its af-

fairs and go out of business. After that date, not only the manufacture but the sale of Klaxons will be conducted by the Lovell-McConnell Mfg. Co. at its factory in Newark, N. J. W. O. Turner, the manager of the Klaxon Co., will become secretary of the Lovell-McConnell company, and will remain in charge of the selling end of the business, in which he so conspicuously has distinguished himself.

### Black Crow Placed on Receiver's Perch.

Judge Carpenter, in the United States District Court in Chicago, on Friday last, 23d inst., appointed Frank McKee receiver for the Black Mfg. Co., of Chicago, manufacturers of the Black Crow car, and for the Marvin Smith Co., which did business at the same address, 215-219 West Ohio street. Both concerns were closely interwoven, the Smith company selling some of the cars made by the Black company. The liabilities of the latter are \$60,139 and assets \$46,673, while the Smith company owes \$18,814.77 and has assets of \$26,074. The Black company started with a motor buggy, but abandoned it last year for a conventional touring car.

### Atwater Kent Institutes Infringement Suit.

The Atwater Kent Manufacturing Works, of Philadelphia, has brought suit in the United States Circuit Court for the Eastern District of Pennsylvania against Jacob Lundgren, of Philadelphia, for infringement of its Letters Patent No. 775,665, issued November 22, 1904, to the Varley Duplex Magnet Co., relative to ignition apparatus. The Atwater Kent people control, in addition to the patent in issue, several patents relative to ignition equipment, spark generators and unisparkers, which they manufacture, and, believing them to be basic in their nature, they state that the suit against Lundgren is but the first they intend to institute in protecting their rights.

### Diamond Establishes Branch in Dallas.

The Diamond Rubber Co. has established a branch in Dallas, Tex., at 2028 Commerce street; it is in charge of C. L. Miller.

## MERGER THAT SEEMS MUCH MIXED

**Reports and Denials of Royal Tourist-Pennsylvania Deal—Cleveland Holding Company Discloses Its Personnel.**

Following the publication late last week of authorized reports that the Royal Tourist Car Co., of Cleveland, Ohio, had acquired the Pennsylvania Auto Motor Co., of Bryn Mawr, Pa., and that an actual start thus had been made toward the building up of the Consolidated Motor Car Co., a merger movement projected last August by Royal Tourist interests, George J. Dunham, president of the Royal Tourist Car Co., issued a "positive denial of the story concerning the Consolidated Motor Car Co. and its connection with the Royal Tourist." Later, Mr. Dunham was met in New York City and to a Motor World man he personally reiterated his denial. He declared that there was not a grain of truth in the story, and stated that it could not be repudiated too emphatically. He regretted that anything had appeared in print, but did not deny that negotiations of some sort were in progress, but said that they are in an "entirely different direction." He added that the publicity man who sent out the report was not authorized to do so, and implied that A. L. Kull, who two or three years ago was prominent in the New York retail trade, had more rather than less to do with the publicity.

The publicity man, a usually reliable chap, insists that he had ample authority, and declares that he personally saw the documents in the case. It was his understanding, he added, that though Mr. Dunham may not be agreeable to the transaction, he, Dunham, represents but a small interest, while 70 or 80 per cent. of the Royal Tourist stock interests are favorable and are party to the deal. The publicity man stated that the Cleveland attorney who was engineering the transaction would be communicated with at once on the long-distance

'phone, and that the lawyer would verify the reports that had been issued. Up to a late hour last night (Wednesday), however, the attorney had not been heard from, nor had E. D. Shurmer, president of the Consolidated company, and generally considered the controlling factor in Royal Tourist affairs, to whom the Motor World had transmitted Mr. Dunham's denial and asked for light on the situation. The Pennsylvania Auto Motor Co. also had been advised of the developments, and asked for similar information, in response to which request the Pennsylvania company wired: "Have no information for publication, as deal has not yet been consummated," implying plainly that it at least was pending and possible.

In the story reporting "the purchase of the entire business and plant" of the Pennsylvania company by the Royal Tourist company, it was stated that the latter had also made "tentative arrangements" for the purchase of the Empire Motor Car Co., of Indianapolis, and "one or two other" companies. The Empire company is owned by several men identified with the National Motor Vehicle Co.

The Royal Tourist company represents the reorganization of the Royal Motor Car Co., which suffered financial embarrassment; it fell heir to the Royal company's Selden license, and as the Pennsylvania Auto Motor Co., whose creditors have been lending a helping hand during recent weeks, does not possess a license, the proposed merger may be viewed from more than one angle.

The Consolidated Motor Car Co. was formed in August last, apparently as a holding company. It was capitalized at \$4,000,000. D. M. Kleinzahler, an investment broker of Youngstown, Ohio, its fiscal representative, being the only man then mentioned in connection with its affairs, although it was well understood that the Royal Tourist interests were behind the merger project. At that time it was given out that one of the objects in view was to sell automobiles direct to the consumer, but this week it was stated that all such ideas had been abandoned, and that the cars, when they come through, will be sold through agents and branch houses, as usual. The personnel of the Consolidated company was not made public until last week, when the story regarding the purchase of the Pennsylvania Auto Motor Co. was given out. E. D. Shurmer, as previously stated, is president, and K. F. Gill, of John Gill & Sons, contractors, is vice-president. The treasurer is A. H. Bedell, who is secretary-treasurer of a large insurance agency in Cleveland, and the secretary is W. D. Forsyth, a consulting engineer. The board of directors is composed of the four officers and O. M. Stafford, F. C. Caine and F. W. Scott. Mr. Stafford is president of the Cleveland Worsted Mills Co and treas-

urer of two Cleveland banks. Mr. Caine is president of the National Concrete Fireproofing Company, and Mr. Scott is with John Gill & Sons.

#### Changes Among Prominent Tradesmen.

Cecil H. Taylor has joined the engineering staff of the E-M-F Co., of Detroit. Previously he was chief engineer of the Hudson Motor Car Co.

C. A. Magee has been appointed auditor of the General Motors Co., and will make his headquarters in Detroit. He comes from St. Louis, where he was comptroller of the Laclede Gas Light Co.

Belmont S. Walters, who left the Pullman Motor Car Co., of York, Pa., to join the Parry Automobile Co., of Indianapolis, has returned to his old love. He is again "talking Pullman" in the Middle West and Southwest.

F. Philip Dorn, secretary and general manager of the American Ball Bearing Co., of Cleveland, Ohio, has resigned the general management, but still retains the secretaryship. Frank H. Teagle has assumed the office of general manager.

Harry S. Houpt, former secretary and manager of the New York company bearing his name, has joined the staff of the American Locomotive Co. He will have charge of the metropolitan sales department, dealing, of course, with the Alco car.

Claude S. Briggs, who several months since joined the staff of the Brush Runabout Co., of Detroit, has been promoted to the post of general manager, in which capacity he will considerably relieve President Frank Briscoe, who also devotes himself to the Alden Sampson Mfg Co. Previous to joining the Brush force, Briggs was president of the Krit Motor Car Co., of which he was the principal organizer. He has disposed of his Krit holdings, but remains president of the Briggs Dental Co. and the American Chair Co., both of Detroit.

#### Six-Cylinder Cars as Dividends.

Six-cylinder motor cars instead of money constitute the first year's dividends offered by a "new automobile company, incorporated under the laws of Toronto," which modestly hides its identity in advertising its unusual proposal in a Toronto paper. Although it declares that it has a "bright future," and that "big dividends are assured," it evidently needs money before it can assure either its future or its dividends, for it advertises as follows:

"We manufacture a six-cylinder, 45 horsepower, five and seven-passenger touring car, and a combination touring car, runabout and light delivery or three in one. We will make you the following proposition: Purchase \$2,500 of the company's stock, and we will give you (free from encumbrance) one of these handsome, powerful touring

cars as your first year's dividend; purchase \$1,500 of the company's stock and we will give you (free from encumbrance) one of the three in one cars as your first year's dividend. Only 25 cars to be given. Investigate at once."

#### Canadian Goodyear Spreading Its Wings.

The Goodyear Tire & Rubber Co. of Canada, Ltd., which recently took over the plant of the Durham Rubber Co. at Bowmanville, Ont., is reaching out in all directions. In addition to its already established house in Toronto, it has located branches at 72 St. Antoine street, Montreal; 150 Princess street, Winnipeg, and 1213 Granville street, Vancouver, and within the next month will open similar stores in St. John, N. B., and Calgary, Alberta. Later it is the intention of the concern, of which F. A. Seiberling, of the Akron (Ohio) Goodyear company, is president, to cross the water and press the sale of its tires in Great Britain, Australia and all other British territory.

#### Building Big Plant for Universal Trucks.

The Universal Motor Truck Co., of Detroit, of which C. H. Haberkorn is president, has commenced work on its plant situated in that city on the line of the Grand Trunk Railroad and Theodore street. The main building will be 84 x 258 feet, four stories in height, of reinforced concrete. The truck which will be built is the design of Vincent Link, the company's engineer.

#### Canadian Factory Begins Car Production.

The Sager "30" is the title of the product of the United Motors, Ltd., which has commenced manufacturing operations in Wel-land, Ont. The car, a four-cylinder touring model, listing at \$1,650, takes its name from Frederick Sager, who, with J. H. Gould, organized the company. At one time or another both men were connected with the Olds Motor Works and other American concerns.

#### United States Motor in Salt Lake.

The United States Motor Co. has established a branch in Salt Lake City under the management of Vernon K. McMains; it will be subsidiary to the United Motor Los Angeles Co., and will handle Maxwell and Columbia cars. The branch temporarily is located at 121 South State street, pending the erection of a new building.

#### Jewel Removed From Hands of Receiver.

After having been in the hands of a receiver since June 24 last the Jewel Carriage Co., of Carthage, Ohio, which manufactures the Ohio car for the Ohio Motor Car Co., again is on its feet. The receiver has been discharged, and incidentally the capital stock of the company has been increased to \$450,000.

**CROXTON HEADS A NEW COMPANY**

**New Yorkers Purchase Croxton-Keeton Assets and Make a New Start—Creditors Will Receive 25 Per Cent.**

As the result of an offer of \$75,000 made by J. P. Stoltz and H. D. Michaels, representing New York interests, the plant and other assets of the Croxton-Keeton Motor Co., of Massillon, O., which was placed in the hands of a receiver in August last, have been purchased by a new company, the Croxton Motor Co., of which H. D. Croxton is president and general manager. Stoltz, who formerly represented the Croxton-Keeton in New York, is vice-president of the new company, and Michaels, secretary and treasurer.

After the sale had been made and had been confirmed by the referee in bankruptcy, the law firm of Johnson & Johnson, of Cleveland, filed a petition asking a review of the proceedings, which action served to prevent the immediate transfer of the property, but the process of incorporating the Croxton Motor Co. was not halted. In the application for an Ohio charter, the authorized capital is stated to be \$250,000, of which \$150,000 is common stock and \$100,000 7 per cent. preferred stock. The incorporators named are Messrs. Croxton, Stoltz and Michaels, and C. P. L. McClean and W. E. N. Hemperly, who will constitute the board of directors. It is stated that the holders of preferred stock in the Croxton-Keeton company will be given preferred stock in the new corporation. The selling price of the Croxton-Keeton assets will net the creditors about 25 per cent.

During the term of the receivership the plant at Massillon has been kept in partial operation and now that the embarrassment has been relieved it will resume full activity, producing the same line of cars and taxicabs as of yore. These all are of the so-called French type with sloping hood and radiator on the dash. The sales manager of the company will be W. F. Melhuish. Vice-President Stoltz will have charge of the New York branch, but Secretary-Treasurer Michaels, a New York real estate man, will remove to the factory in Massillon.

**Prizes to Promote Factory Efficiency.**

On Saturday last the Timken-Detroit Axle Co. put into practice a new idea to promote factory efficiency when cash prizes were awarded to the foremen whose departments were adjudged to have been kept most carefully and most cleanly since November 1 when the prizes first were announced. The first prize, \$25, went to the foreman of the drill press department; the second, \$20, to the foreman of the gear cut-

ting and grinding department, and the third, \$15, to the stockkeeper. "Consolation prizes" of \$5 each were awarded to six other foremen, of whom there were 65. All of them received boxes of cigars, and they in turn presented Superintendent Weaver and Assistant Superintendent Thompson with gold watch fobs.

**Tire Company Formed in New Brunswick.**

The Endurance Tire & Rubber Co., of New Brunswick, N. J., which has been incorporated under the laws of that state with \$100,000 capital stock, has leased a plant at 17 Waters street in New Brunswick, and will at once begin the production of automobile tires and tubes. Clement Eckrode, formerly with the J. Elwood Lee Co., and George E. Russell and Jabez Hyde are the known stockholders. The superintendent of the plant, which at the start will employ only about 25 men, will be James Devine, at one time with Michelin and later with the Federal Rubber Co.

**Detroit Parts Company Buys Big Plot.**

The Auto Parts Co., of Detroit, of which Alfred O. Dunk is president, has purchased a factory site of about three acres in that city comprising the block bounded by Trombly and Milwaukee avenues and Orleans and Dequindre streets, the purchase including three factory buildings standing thereon. The company will at once occupy one of these buildings, and for some time will also operate its present plant at 1379-97 St. Antoine street.

**Stilson Wrenched in Bankruptcy Court.**

The Stilson Motor Car Co., Pittsfield, Mass., was petitioned into bankruptcy on Tuesday last, 27th inst., when John B. Cummings, a lawyer, was appointed receiver. Its liabilities are placed at \$40,000 and assets less than \$3,000. The company undertook to build a six-cylinder car, but never made enough of them to cut any figure in the industry.

**Ignition Company Organized in Detroit.**

The American Ignition Co. has been organized in Detroit with \$25,000 capital stock to take over the Co-operative Manufacturers' Co., doing business at 1231 Woodward avenue, in that city. Charles R. Baxter, Ralph O. Stephenson and Joseph E. Schaefer, Jr., are the stockholders.

**Barnes Plant to Be Sold at Auction.**

By order of the court, the plant of the bankrupt Barnes Motor Car Co. of Detroit (formerly the Anhut Motor Car Co.), will be sold at public auction on Wednesday next, January 4.

**Sandusky Plant Begins Making Parts.**

The plant of the Sandusky Auto Parts & Motor Truck Co., at Sandusky, O., which recently was completed, began operations last week. Nearly 150 men are employed.

**UNITED STATES MOTOR'S BALANCE**

**Big Company Renders Report of Its Financial Condition—How Its Assets Compare With Its Liabilities.**

Following its annual meeting in Jersey City last week, the general balance sheet of the United States Motor Co., as of November 30, 1910, was made public. It shows the following.

Assets.	
Securities of subsidiary companies owned .....	\$20,152,283
Treasury stock .....	524,400
Furniture and fixtures .....	20,141
Improvements .....	119,048
Inventory, etc., at cost .....	898,160
Expenses .....	154,115
Deferred charges .....	164,495
Accounts and notes receivable .....	2,850,299
Cash .....	926,333
Accounts due affiliated companies .....	747,629
Total .....	\$26,556,907

Liabilities.	
Preferred stock .....	\$10,093,300
Common stock .....	11,562,100
Stock script .....	1,383
Notes exchangeable for stock August 1, 1911 .....	1,750,000
Customers' deposits .....	516,587
Annual expenses .....	7,840
Notes receivable .....	319,478
Advances on cars, etc. ....	38,108
Accounts payable .....	22,039
Accounts payable affiliated companies .....	1,279,980
Profit and loss surplus (not including surplus profits of affiliated companies) .....	966,089
Total .....	\$26,556,907

**Western Motor to Remove to Marion.**

The Western Motor Co., manufacturers of the Rutenber motors, are about to transfer their general offices and sales department from Logansport, Ind., to Marion, Ind., where a modern, fireproof factory and office building has been completed, and which will permit of an output of 10,000 motors during 1911. New engines for heavy duty are being built and will be brought out in the early part of next year.

**May Make Motor Trucks in Marine City.**

The Peninsular Motor Truck Co., of Detroit, Mich., has obtained an option on a factory site in Marine City, Mich., and if the citizens of the latter place subscribe for enough of the company's stock, it will erect a plant for the production of two-ton trucks. The citizens are to hold a meeting on January 6, when the necessary pledges are expected to be forthcoming.

**To Produce Leak-Proof Piston Rings.**

The McQuay-Norris Mfg. Co. has leased the building at 1311 Chestnut street, St. Louis, Mo., which will be equipped for the manufacture of a leak-proof piston ring which the company controls. The lease covers a period of five years.

**THE WEEK'S INCORPORATIONS.**

Cincinnati, Ohio.—Motor Car Supply Co., under Ohio laws, with \$50,000 capital. Corporators—Andrew C. Gilligan and others.

Pittsburg, Pa.—Auto Tire & Supply Co., under Pennsylvania laws, with \$10,000 capital; to deal in automobile tires and accessories.

Milwaukee, Wis.—Cream City Auto Co., under Wisconsin laws, with \$5,000 capital. Corporators—H. E. Rogers, Carl Stanum, W. J. Sarres.

Jacksonville, Fla.—Florida Motor Co., under Florida laws, with \$10,000 capital. Corporators—H. P. Clark, Henry N. Carrier, J. A. Forsythe, Jr.

Coroapolis, Pa.—Coroapolis Garage Co., under Pennsylvania laws, with \$6,000 capital; to operate a garage. Corporators—W. F. Venter and others.

Boston, Mass.—Coburn Auto Sales Co., under Massachusetts laws, with \$25,000 capital; to deal in automobiles. Corporators—J. L. Coburn and others.

Detroit, Mich.—Woodward Taxicab Co., under Michigan laws, with \$15,000 capital, to operate a taxicab service. Corporators—Richard Cohen, Victor H. Cohen.

Providence, R. I.—Revere Rubber Co., under Rhode Island laws, with \$4,000,000 capital. Corporators—Judge James Harris, Clarence H. Guild, Walter S. Ballou.

St. Louis, Mo.—American Tire Co., under Missouri laws, with \$10,000 capital; to manufacture and deal in automobile and bicycle tires. Corporators—W. E. Grayson, M. A. Dees.

St. Louis, Mo.—Chicopee Motor Car Co., under Missouri laws, with \$3,000 capital; to manufacture and deal in automobiles, etc. Corporators—Harry C. Carr, Francis V. Carr, of St. Louis County, Mo.; Jackson J. Blincoe.

Chicago, Ill.—National Motor Device Co., under Illinois laws, with \$30,000 capital; to do general manufacturing business. Corporators—C. O. Garmire, R. Leviton, J. H. Hoglund.

East Orange, N. J.—Whiting Motor Co., under New Jersey laws, with \$12,000 capital; to deal in automobiles. Corporators—Harry H. Picking, Charles C. Geyer, Frank T. Ruggles.

Boston, Mass.—Taylor Motor Sales Co., under Massachusetts laws, with \$20,000 capital; to deal in automobiles. Corporators—John I. Taylor, Albert H. C. Mitchell, Hugh A. McBreen.

Indianapolis, Ind.—Auto Purchasing & Exchange Co., under Indiana laws, with \$10,000 capital; to deal in automobiles. Corporators—J. W. Northcutt, F. H. Johnson, F. J. Wallace.

Syracuse, N. Y.—Overland-Syracuse Co., under New York laws, with \$50,000 capital; to deal in automobiles and accessories. Cor-

porators—J. W. Lee, M. B. Lee, C. S. Rockhill, of Syracuse.

Boston, Mass.—Massachusetts Sales Co., under Massachusetts laws, with \$25,000 capital; to deal in automobiles. Corporators—Donald B. Smith, James A. Hartshorn, Arthur L. Crowley.

Boston, Mass.—Commercial Vehicle Association, of Boston, under Massachusetts laws, with \$20,000 capital. Corporators—LeBurton B. Butler, Day Baker, Frank S. Carrew, George P. Dennett.

Chicago, Ill.—Wilson Garage Co., under Illinois laws, with \$10,000 capital; to do general automobile and garage business. Corporators—E. A. Roser, Roy O. MacPherson, Edward J. Best.

Cumberland County, Me.—Hormel Auto-Appliance Co., under Maine laws, with \$1,000,000 capital; to manufacture automobile appliances. Corporators—C. E. Eaton, T. L. Croteau, of Portland, Me.

Portland, Ore.—Doyle Automatic Truck Co., under Oregon laws, with \$50,000 capital; to manufacture and deal in industrial motor vehicles and trucks. Corporators—J. C. Doyle, C. D. Ross, D. Doroit.

Camden, N. J.—Acme Ball Bearing Co., under New Jersey laws, with \$150,000 capital; to manufacture ball bearings for axles, trucks, cars, etc. Corporators—J. A. McPeck, F. R. Hansell, W. F. Eidell.

New York City, N. Y.—Stern Motor Co., under New York laws, with \$100,000 capital; to manufacture motors, engines, vehicles, etc. Corporators—F. M. Randall, P. K. Stern, L. Rosenberg, New York City.

Edgewater, N. J.—Marion Motor Co., under New Jersey laws, with \$100,000 capital; to manufacture automobiles, motor vehicles, etc. Corporators—E. J. Forhan, G. F. Martin, H. P. Jones, all of New York City.

Buffalo, N. Y.—Nichols & Wright Motor Co., under New York laws, with \$300,000 capital; to manufacture motors, engines, etc. Corporators—W. R. D. McQuarrie, C. G. Horning, B. Knox, all of Buffalo.

Los Angeles, Cal.—Corbin Motor Car Co., under California laws, with \$25,000 capital, of which \$500 has been paid in. Corporators—F. A. Linck, Edward Eckl, Wallace Roundtree, Albert Herzog, G. Grueb.

Atlanta, Ga.—Fulton Auto Supply Co., a corporation of the State of Georgia, reorganized with a capital of \$30,000; to deal in automobiles. Corporators—J. W. Goldsmith, Carl W. Fort, Andrew Calhoun.

Chicago, Ill.—Lalor Wagon Co., under Illinois laws, with \$200,000 capital; to manufacture and deal in automobiles, wagons, carriages and other vehicles. Corporators—M. W. Lalor, D. K. Lindout, J. C. K. Lindout.

Boston, Mass.—Aeroplane Co. of America, under Massachusetts laws, with \$100,000 capital; to manufacture and deal in automobiles and aeroplanes. Corporators—Al-

bert C. Triaca, W. Mason Turner, John F. Queen.

Wilmington, Del.—Detachable Wheel Co. of America, under Delaware laws, with \$50,000 capital; to manufacture patented automobile wheels. Corporators—W. N. Akers, M. C. Taylord, W. H. Maloney, all of Wilmington.

Brooklyn, N. Y.—Clark-Norwalk Co., under New York laws, with \$3,000 capital; to manufacture and sell motors, engines, etc. Corporators—Harry Meinken, of Brooklyn; Ella M. Schacht, Joseph G. Quinn, Jr., of New York City.

Detroit, Mich.—American Ignition Co., under Michigan laws, with \$25,000 capital; to manufacture ignition devices for internal combustion engines. Corporators—Charles R. Baxter, Ralph O. Stephenson, Joseph E. Schaefer, Jr.

Paterson, N. J.—Fear-Naught Tire & Rubber Co., under New Jersey laws, with \$125,000 capital; to manufacture automobile tires and vehicle tires. Corporators—E. J. Forham, G. F. Martin, H. P. Jones, all of New York City.

New York City, N. Y.—Windshield Mfg. Co., under New York laws, with \$200,000 capital; to manufacture windshields, tools, appliances, etc. Corporators—W. B. La'shar, Bridgeport, Conn.; H. R. Schwartz, R. H. Montgomery, New York City.

New Brunswick, N. J.—Endurance Tire & Rubber Co., under New Jersey laws, with \$100,000 capital; to manufacture automobile tires and accessories. Corporators—Clement Eckrode, of Conshohocken, Pa.; George B. Russell, Jabez H. Helm, of New Brunswick, N. J.

Hartford, Conn.—Barker Auto Co., under Connecticut laws, with \$6,000 capital; to manufacture and deal in motor vehicles and boats, and accessories. Corporators—Charles Barker, of Terryville; Noble E. Pierce and Kendall M. Pierce, of Bristol, Conn.

**Recent Losses by Fire.**

Charleroi, Pa.—Charleroi Automobile Co., garage destroyed; loss, \$20,000.

Cleveland, Ohio—Gabriel Horn Mfg. Co., factory destroyed; loss estimated at \$75,000.

Watertown, Mass.—Edward M. Clancy's garage on Waltham street destroyed; loss, \$1,000.

Lockport, N. Y.—Dusault Garage, on Buffalo street, and contents burned. Loss, \$10,000. Caused by crossed electric wires.

**Dissolutions.**

The Chicago Taxicab Co., of Chicago, Ill., has certified to a dissolution of business.

The F. E. Bowers Co., of New Haven, Conn., has filed its final certificate of dissolution.

## IN THE RETAIL WORLD.

A new garage has been opened on Morton street, Richmond, Va. A. Anderson is the owner.

Work is progressing rapidly on a new garage which is being built in Coeur d'Alenes, Ia. W. A. Boggs is the owner.

W. L. Lynde is building a garage in Los Angeles, Cal. It will be at 133 Locust avenue, two stories high, 50x150 feet, with concrete floors.

The McCulley-Deane Co. is the style of a new accessory house which has been opened in St. Louis, Mo. It is located at 3919 Olive street.

The Motor Accessories Co., which recently was formed at Indianapolis, Ind., has opened a salesroom at 323 North Pennsylvania street.

Work has been started upon a new garage on Dat street, Cambridge, Mass. Thomas H. Kingston and Freeman B. Horseman are building it.

Charles E. and Cora Bloomhuff have leased the building at 5535-37 State street, Chicago, Ill., for a term of seven years. They will use it as a garage.

Washington, Pa., has a new garage at 448 West Chestnut street, where the Clutter Automobile Co. has been established. B. R. Clutter is the manager.

H. Canoll, of Monrovia, Cal., is building a garage 53x100 feet. It will be of reinforced concrete, two stories high, with enameled brick front and plate glass.

The Connellsville Automobile Co. has been formed in the Pennsylvania town of that name. J. B. Slonecker, Harry Williams and James Guyna are the partners.

A garage 32x100 feet is being erected behind the Unique Theater in Tuscaloosa, Ala. It will be one story high, of brick, with plate-glass front, and will face on 7th street.

The Nyberg-Waukesha Automobile Co. is a new concern which just opened a salesroom and garage on Broadway, in Waukesha, Wis. Nyberg cars will be dealt in exclusively.

Dulmage & Smith is the style of a new firm which has "opened up" at the corner of Seventh and Ankeny streets, Portland, Ore. Elmore pleasure cars and Rapid trucks are to be sold.

Work has been started upon a garage to be erected on Liverpool street, East Boston, Mass., by Lin McKie, who will handle Velie cars. The building will be ready for occupancy on May 1, 1911.

R. C. Hulbert, of Los Angeles, Cal., has opened a tire and accessories store in the Angel City. He will operate under the style the Hulbert Rubber Co., with headquarters at 1040 South Main street.

C. L. Lokker and Herman Prins have formed a partnership and are building a garage on the corner of Columbia and

Eighth streets, Holland, Mich. It will be ready for occupancy early in spring.

H. W. and W. A. Buckins have formed the Standard Motor Car Exchange, in Lancaster, Pa., and opened headquarters at 110-114 North Water street. They will maintain a garage and also deal in used cars.

The Youngstown Auto Co. has been organized in the Ohio city of the name, with W. S. Westerbrook and John Goppinger as the principal members of the firm. A garage is to be erected at once in the rear of 511 Market street.

Fred F. Thompson, of Lawton, Okla., has purchased the business of the McDuffie Motor Car Co., of the same town, and will occupy its building at 620 D avenue, under the style the Lawton Garage. He handles the Maxwell line.

A petition in involuntary bankruptcy has been filed against the City Garage, Inc., at White Plains, N. Y., by the Fisk Rubber Co., of Chicopee Falls, Mass., a creditor for \$2,438. The assets of the company are estimated at \$5,000.

The Northwest Auto Co., of Seattle Wash., formerly Northwestern distributor for Buick cars, has relinquished that line and taken the agencies for Reo and Apperson cars. Its new salesrooms are at 511-513 East Pike street.

Wilkinson & Faulkner have begun business in Lincoln, Neb., Rees Wilkinson and Bert E. Faulkner comprising the firm. They will handle the Rauch & Lang electric line in temporary quarters at 1406 O street until their new building is completed.

Fred J. Wagner, of San Francisco Cal., has taken over the interests of the Wagner & Reniffe Co., in which he was a partner, and formed a new company under the style of the Auburn Motor Car Co. As the name indicates, he will handle Auburn cars.

The Boston sales end of the American Motor Co., of Brockton, Mass., has been taken over by the Kenneth Motor Co., at the head of which is Raymond S. Joo. The headquarters of the concern are at 173 Huntington avenue, while the garage is at 330 Newbury street.

Harrah & Stewart, who for many years have dealt in solid rubber tires for buggies, have entered the automobile supply business and opened a large accessory department at 514-520 East Court avenue, Des Moines, Ia. William F. Harrah and George B. Stewart are the members of the firm.

In Alliance, Ohio, the Standard Auto Co. has been formed by C. L. Akins W. T. King and E. A. Fisher, the latter of Detroit. In addition to operating a garage, the company will conduct the business of what was formerly the Michigan & Ohio Welding Co., which belonged to E. A. Fisher.

The Imperial Car Co., recently incorporated with \$150,000 capital stock by

Harry Strauss and others in Cincinnati, Ohio, has purchased a large plot on Madison road, 66x234 feet, and will erect a garage thereon. The building will be 62x200 feet, three stories high and will cost \$50,000.

Henry L. Johnson, former Boston agent for Premier cars, has been appointed manager of the new branch established in Indianapolis, Ind., for the sale of Premier cars. The Gibson Automobile Co., which heretofore handled the Premier line in addition to several others, hereafter will deal in Marion cars exclusively.

E. J. Welch, owner of the Welch brass foundry, Fitchburg, Mass., and F. S. Sutherland, of the Boston branch of the Peerless Motor Car Co., have formed a partnership under the style of Welch & Sutherland. They will operate a garage at 80-86 Lunenburg street, Fitchburg, Mass., and handle the Peerless and Chalmers cars.

W. A. Norton and S. A. Newland, who conducted a gasoline engine business at 21 North First avenue, Marshalltown, Ia., have sold their interests to G. A. Gauthun and K. Bratteig, of the same town. Norton will henceforth devote his time to automobiles, having gone into partnership with W. Bohr, under the style of Mohr & Norton.

W. H. Luesing, one of the partners of the Southern Auto Co., of Louisville, Ky., has filed a petition for dissolution of partnership. The plaintiff alleges that the firm, which is composed of himself, W. H. Montgomery and William A. Baker, owes him \$7,500, and that disagreements among the members of the firm render it impossible to continue business.

An involuntary petition in bankruptcy has been filed in the Federal Court at Houston, Tex., against the Standard Auto Co., of which E. E. Guthrie is president. The petitioning creditors are: Texas Motor Car Co., of San Antonio (\$220); Houston Chronicle Pub. Co. (\$346.10); Bonner Oil Co. (\$128). The company was incorporated about a year ago, and had its salesroom and garage at the corner of Louisiana street and Rusk avenue.

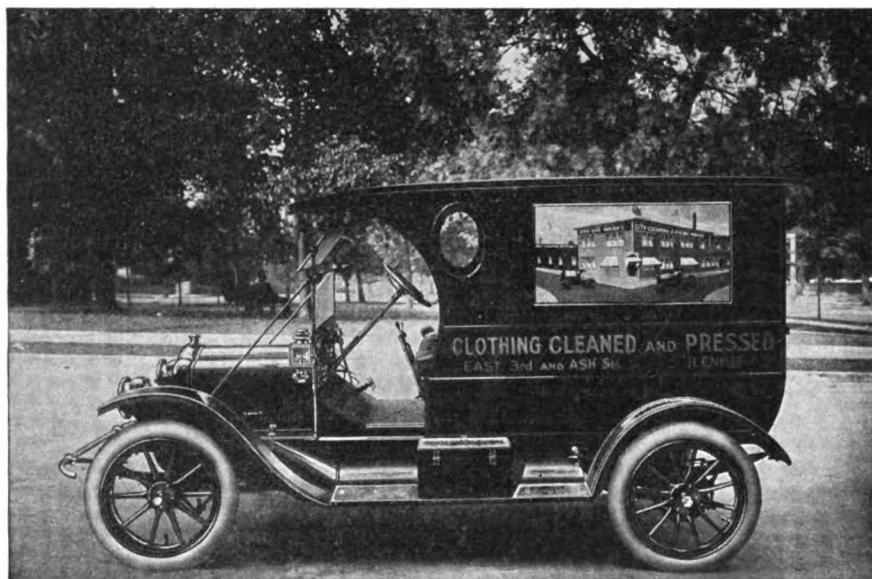
## Rochester Dealers Vote Against Show.

The automobile show which, for the past three years has been held by the Rochester (N. Y.) Automobile Dealers' Association, will not be repeated this year. At a meeting of that association, held last week, it was found that there was practically no demand for the show, hence its abandonment.

## Insurance Policies as Christmas Gifts.

As a Christmas present, each employee of the Velie Motor Vehicle and the Velie Carriage companies received a paid-up 20-year endowment life and accident insurance policy for \$1,000 in his pay envelope. It was the gift of W. L. Velie, the president.





## The Best Proposition for the Dealer

**I**F you are a dealer in vehicles and have watched the encroachment of the automobile trade, perhaps even affiliated yourself with the automobile industry and added touring cars to your line, you still may have found the problem of a successful paying business unsolved. The competition in touring cars is keen—there are so many products—so many claims—so many talking points that it is difficult for real merit to be demonstrated. But in the line of commercial vehicles—the trucks and delivery wagons, competition is much less keen. In fact, one can enumerate on the fingers of one hand the number of manufacturers who have successfully produced motor trucks.

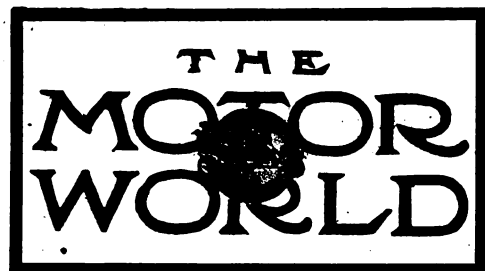
**White Motor Trucks** Conspicuous among these is the White Company. Our one and a half and three ton trucks and fifteen-hundred pound delivery wagons—vehicles that have been tested from Maine to Texas in the hands of countless owners on level streets and cross-country roads, in every case return a verdict of efficiency.

**White Trucks Save** Economy of up-keep and economy of operation has been proven in so many cases there can no longer be a question of the real saving to be made for any customer who has sufficient hauling to be done. White trucks are more reliable than horses—not so liable to injury—not so likely to be laid up at the busy season, they are untiring, capable of being worked twenty-four hours a day if necessary and just as efficient the last hour as the first. These features make White trucks selling propositions—the kind that any dealer likes to push—the kind upon which he can stake his reputation. Why not follow the path of least resistance and sell the things the people want—White Motor Trucks.

Catalogues, testimonials and other literature gladly sent upon request.

  
**The White Company**

830 East 79th Street, Cleveland



PUBLISHED EVERY THURSDAY BY

**The Motor World Publishing Co.**

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### Looking Backward and Forward.

"Look forward, not backward," is an inspiring sentiment and has its uses; but just the same the man who occasionally does not look backward and survey the field over which he passed is far more likely to take blundering mis-steps than is he who is given to surveys of this sort. The closing of an old year and the dawn of a new one always is a fitting season for such retrospect. For it is on the mistakes of the past that the future is corrected. It is hindsight that assists foresight.

A look backward—a long look backward and then a look forward—a long forward look will serve to good purpose those who comprise the automobile industry. In the receding distance will be found dimly outlined days that will come no more—the days of fizz and fireworks, of fun and frolic and "easy money," and lots of it. For if the embers of the dying year render clearer a particular fact, it is that the automobile

industry no longer is a hoity-toity business; like life itself, it has become very real and very earnest; and life has been likened to a nettle of which it has been said: "Disturb it, it stings; grasp it firmly, it stings not." It is the men of firm grasp who will escape the stings of the trade. There are men who have blundered into success despite themselves; but they are not many. Though success often is a matter of opportunity, it is the exception when it is a creation of luck. It is the strong man who finally prevails—the man who knows when to tighten his belt and how to resist temptation; who knows the folly of painting the lily and chasing the rainbow; who recognizes the truth when he sees it; who does not deceive himself, and who is content to believe that but a very small part of the earth is his portion.

The past year has been a not unkindly one. Many problems of the industry have settled themselves; others are in process of settlement, so gradual as scarcely to be felt. Many weak brothers have folded their tents, not a few so silently as scarcely to be missed. In the nature of things others will do likewise; the fittest will survive. It is not a time for pessimism but the optimism must be of the sort that is not fired by fizz or fireworks. All signs indicate that just ahead there is a period of fierce competition—competition that will move men to reach out in this direction and in that one without too much thought of ultimate result or with too much intensity born of war-like mood or too much faith born of confidence in self. It is a time to keep feet planted firmly on the ground, and, while looking forward, to reach not too far or too often.

### Introducing the Business Wagon.

Commercial vehicle salesmen have found it necessary to overthrow a good many false impressions in endeavoring to introduce the business wagon to the business man as a purely business proposition. In a sense the measure of their success is the measure of their ability to dispel mistaken notions as to the purpose and scope of the automobile. But there yet remains to be done considerable further work in the same direction. To the average understanding, the motor truck even yet is too much a special product, its use savors too much of a business stunt, to be wholly advantageous to the market and so to the industry.

One particular illusion which is cherished by many merchants and manufacturers is that the automobile in itself possesses a large amount of advertising value to its user. That there is a certain basis of fact in the assumption is what lends it its deceptive quality. That the impression is general and is shared alike by many users and non-users of commercial automobiles does not alter the fact that its tendency is not wholesome.

That the commercial motor has a certain advertising value goes without saying, nor should that value in the least be depreciated. It is concerning the exact magnitude and import of the automobile as an advertising medium in business that the misconception has arisen. There is publicity in the display of even the mere business card or of a firm name painted on the side of a wagon. If it be a motor wagon, instead of a horse-drawn one, that value may be said to be increased proportionately because its greater radius of travel brings it within the range of vision of a greater number of people in a given period. It is possible even to compute the advertising value of a motor truck on the basis of its average daily mileage, the average traffic on the streets and the area utilized. The calculation is a very pretty and pleasing pastime and in its way is convincing but it does not cover the ground. It expresses only one phase of the question and the least important phase at that.

The true value of the motor truck is that it affords means for local transportation in a cheaper and more expeditious fashion than can be obtained in any other way. Just as labor saving machinery, improved processes, simplified operations and other media of the production engineer accelerate business by speeding up certain intermediary steps so the motor vehicle accelerates business by increasing the rate of local goods movement. The automobile itself occupies exactly the same relation to the ultimate result as does any other mechanical contrivance which serves the same generic purpose. The business which employs it may be distinguished by the expedition with which it accomplishes results, by the quantity of work which it turns over, by its adoption of modern and approved methods of accomplishing results. But the mere use of special machinery, automobile or otherwise, never can benefit it of itself, because it is possible to misuse even improved

machinery, to render it a serious burden on any undertaking, as well as a help. Success with motor vehicles depends quite as much on the way the machine is run as on the nature of the equipment.

The wise commercial vehicle salesman is striving to instil the idea that the motor truck is merely a means to an end, a progressive instrument through the use of which work can be expedited and costs reduced. The prospective buyer who seeks a concession on the purchase price because of the advertising value of the equipment

to the automobile manufacturer, like the motor truck salesman who aims to increase his sales by urging the advertising value of the equipment to its owner as a leading feature, is manifestly on the wrong track. The point to be urged is that the motor truck is nothing more nor less than a utensil the worth of which can be measured only in terms of what it accomplishes.

The manner in which rival shows are springing up in various cities is much to be regretted; every effort should be made

to avoid such clashes. Except for the pockets of the individual promoter, one good show is far better for the trade than two "pretty good" ones, and, however keen may be their rivalry, the dealers concerned should recognize the truth and for common benefit should endeavor to patch up a truce, if only for the occasion. They are the men who must "pay the freight," and however seductive may be the wiles of the promoter, the dealers should be wise enough to grasp that, when rival shows occur, one always suffers by comparison.

## COMING EVENTS

December 24-31, Los Angeles, Cal.—Second annual show of Licensed Motor Car Dealers' Association of Los Angeles at Fiesta Park.

December 31-January 7, New York City—"Independent" automobile show in Grand Central Palace.

January 2, Guttenberg, N. J.—Racemeet on Guttenberg track.

January 2, Tucson, Ariz.—Racemeet under auspices of Tucson Automobile Club.

January 2-7, New York City—Importers' automobile show in Hotel Astor.

January 7-14, New York City—Association of Licensed Automobile Manufacturers' eleventh annual show in Madison Square Garden. Pleasure cars and accessories.

January 10, New York City.—Meeting of executive committee of American Automobile Association.

January 11, New York City.—Meeting of executive committee of National Association of Automobile Manufacturers.

January 11, New York City.—Meeting of the executive committee of the Association of Licensed Automobile Manufacturers.

January 11-12, New York City—Annual meeting of the Society of Automobile Engineers.

January 12, New York City.—Meeting of board of managers of the Association of Licensed Automobile Manufacturers.

January 13, New York City—Annual banquet of the Motor and Accessory Manufacturers at Waldorf-Astoria.

January 14-15, Los Angeles, Cal.—Race-meet on Los Angeles motordrome.

January 14-21, Milwaukee, Wis.—Milwaukee Automobile Dealers' Association's second annual show in the Auditorium.

January 14-28, Philadelphia, Pa.—Annual show of Philadelphia Licensed Automobile Dealers' Association in Third Regiment Armory.

January 16-21, New York City—Association of Licensed Automobile Manufacturers' eleventh annual show in Madison Square Garden. Second week devoted to commercial vehicles.

January 16-21, Detroit, Mich.—Detroit Automobile Dealers' Association's annual show in Wayne Pavilion.

January 17-18, Philadelphia, Pa.—Quaker City Motor Club's roadability run to Harrisburg, Pa., and return.

January 18, New York City—Annual banquet of the Automobile Trade Credit Association.

January 25-28, St. Paul, Minn.—First annual show of automobile dealers in Auditorium.

January 28-February 4, Chicago, Ill.—National Association of Automobile Manufacturers' tenth annual national show in Coliseum. Pleasure cars and accessories only.

February 6-11, Chicago, Ill.—National Association of Automobile Manufacturers' tenth national show in Coliseum. Pleasure and commercial cars, motorcycles and accessories.

February 6-11, Buffalo, N. Y.—Annual show.

February 13-18, Washington, D. C.—Second annual show in Convention hall.

February 13-18, Winnipeg, Canada.—Winnipeg Motor Trades Association's show.

February 14-18, Dayton, Ohio—Second annual show in Memorial building.

February 18-25, Binghamton, N. Y.—Annual show.

February 18-25, Minneapolis, Minn.—Minneapolis Automobile Show Association's annual show in National Guard Armory.

February 18-25, Newark, N. J.—New Jersey Automobile Exhibition Co.'s fourth annual show.

February 18-26, Brooklyn, N. Y.—First annual show of Brooklyn automobile dealers at 23d Regiment armory.

February 20, Cleveland, O.—Show in Central Armory.

February 20-25, Baltimore, Md.—Annual show in Fifth Regiment Armory.

February 20-25, Cincinnati, O.—Cincinnati Automobile Dealers' Association's show in Music Hall.

February 20-25, Omaha, Neb.—Third annual show of the Omaha Automobile Show Association in Auditorium.

February 24-27, New Orleans, La.—First annual show of New Orleans Automobile Club at Fair Grounds.

February 24-25, Keene, N. H.—Consolidated Motorcyclists' third annual motor-vehicle show.

February 25-27, New Orleans, La.—New Orleans Automobile Club's annual Mardi Gras racemeet on Fair Grounds track.

February 25-March 4, Toronto, Canada—Annual show under auspices of Ontario Motor League.

February 27-March 4, Kansas City, Mo.—Fifth annual show of Kansas City Automobile Dealers' Association.

February 27-March 4, Sioux City, Ia.—Automobile Dealers' Association's annual show.

March 4-11, Boston, Mass.—Boston Automobile Dealers' Association's annual show in Mechanics building.

March 6-11, Dayton, Ohio—Dayton Automobile Club's show in Memorial building.

March 7-11, Des Moines, Ia.—Third annual show of Des Moines Automobile Dealers' Association at the Coliseum.

March 11-18, Cleveland, O.—Manufacturers and Dealers' Association's show in Central Armory.

March 14-18, Denver, Colo.—Annual show in Denver auditorium.

March 14-18, Syracuse, N. Y.—Syracuse Automobile Dealers' Association's second annual show in State Armory.

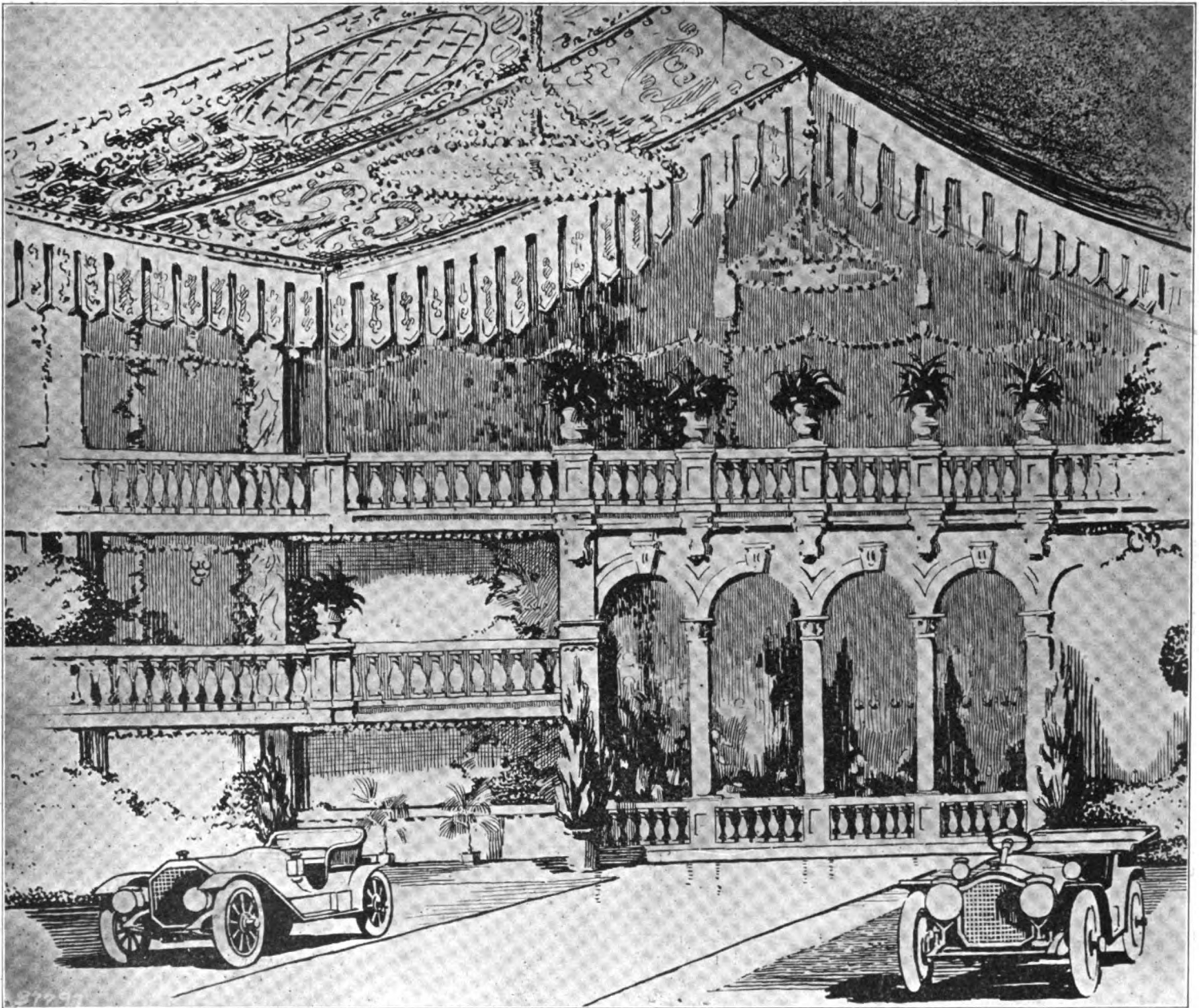
March 15-18, Louisville, Ky.—Louisville Automobile Dealers' Association's annual show in First Regiment Armory.

March 18-25, Pittsburg, Pa.—Annual show in the Exposition Building.

April 1-8, Montreal, Can.—Annual show in Coliseum.

# WHAT THE PALACE SHOW WILL OFFER

Seventy-two Exhibits of Cars and Trucks to be Staged, Most of Them New and Some of Them Novel—Aeroplanes, However, Take the Place of Accessories:



DECORATIVE SCHEME FOR MAIN ROTUNDA OF GRAND CENTRAL PALACE SHOW

When the "independent" show in Grand Central Palace, New York, is opened on Saturday evening next, 31st inst., there will be disclosed more cars bearing names new to New York and the East generally than a goodly portion of the East has imagined were in existence. While cars of eastern manufacture will not be lacking, the show will be essentially an eastern exhibition of western cars.

The products of no less than 72 manu-

facturers will be in evidence, a number sufficient to "give pause" even to seasoned veterans of the trade who may have fancied that after the Selden patent and the Association of Licensed Automobile Manufacturers opened up some ten months ago and gathered in most of those who constituted the previous "independent" shows in Grand Central Palace, there would not be left enough "independents" to prevent echoes from chasing themselves in that

capacious structure. But as the roll attests, the soil of the industry has been fertile, and if it has given root to new cars and strange ones in strange places, so also has it prospered some splendid creations tended by skilled hands and fathered by men well known in other fields of industry.

It is not in cars that the Palace show will be found lacking, but in accessories. It will be an automobile show minus auto-

mobile accessories. For though the promoters figuratively moved heaven and earth and brought all manner of pressure to bear, they failed to enlist the manufacturers of the thousand and one big things and little things that go to make the motor car complete and more convenient or more comfortable. The Palace show failed to obtain a sanction from the National Association of Automobile Manufacturers, and as a result all who exhibit there must perforce expect to find the sanctioned shows in Madison Square Garden in New York, and in the Coliseum in Chicago, closed to them. Few cared to be so "ostracised," and as a result the accessory department at the Palace will cut but a sorry figure. Including two club exhibits, there are but 28 accessories displays listed, and of the 28, the names of scarcely half a dozen are familiar to the trade.

When the promoters—two residents of Troy, N. Y., who are operating as the American Motor Car Manufacturers' Exhibit Association—realized that despite their best efforts accessory exhibits would be conspicuous by their absence, they turned to aeroplanes to fill the void, and during recent weeks, it has been made appear that the show will be almost as much an exhibition of air craft as of road vehicles. The display of the former promises to be a rather notable one, and is expected to assist materially in attracting the public to the box office. It was through the medium of the aeroplane that the interest of Gen. Fred D. Grant commander of the Department of the East was enlisted, and it largely is because of it that he will go through the motions of formally opening the show Saturday evening.

The show promises to prove pleasing to the eye, for the decorative hand has not been stayed. The interior of the building is to be transformed into an Italian garden, with the rotunda forming the main court yard. Crimson and cream are to constitute the color scheme, and the illumination has been so shaded that it is declared the effect will be "gorgeous without being glaring."

Although, due to the lack of accessories, the show will be of almost tabloid proportions, the exhibits will be of considerable interest, owing to the presence of a number of products which never before have appeared in New York. There will be some 30 odd exhibits of products which are brand new, or which hitherto have figured only at local shows in the immediate neighborhoods where they are built, while no less than 18 other productions, though more generally known, never have been staged at a show in New York City.

Viewed from another angle the show will be significant of the trend of the times as revealing the uprising of a number of builders of commercial vehicles not a few of which devote themselves exclusively to the building of business wagons. In both

lines the newer products will reveal strikingly original points in many instances, this being especially true of the commercial side of the show. Something like 50 different makes of pleasure car will be shown as follows:

Abbott-Detroit, Alpena Flyer, Arbenz, Babcock, Bergdoll, Beyster-Detroit, Black Crow, Carhartt, Clarke, Cole, Coleman, Correja, Crawford, Cunningham, Cutting, Cyklonette, De Tamble, Findlay, Firestone-Columbus, Gaylord, Henry, Houpt-Rockwell, Imperial, International, Isotta, Johnson, Kelsey Motorette, Krit, Lexington, Lion, McFarlan Six, Metz, Michigan, Norwalk, Oliver, Only, Otto, Owosso, Paige-



E. W. ARBOCAST  
General Manager De Tamble Motors Co.

Detroit, Parry, Paterson, Penn, Petrel, Roader, Velie, Whiting, Warren-Detroit, Washington.

The score or more of commercial vehicles will include the following:

American Standard, American, Babcock, Beyster-Detroit, Buffalo, Cass, Chase, Coleman, Cortland, Crown, Geneva, Gramm, Hart-Kraft, Ideal, International, Johnson, Kelly, Little Giant, Maytag, Monitor, Oliver, Penn-Unit, Saurer, Seitz.

If the unusual in motor car construction be sought in particular, interest may be expected to center about the three-wheeled vehicle, which is experiencing what may be termed a recall to life, since it is of ancient origin. Two different types of vehicle of this style will be shown, one, the Cyklonette being a German importation, and the other, the Kelsey Motorette, having been conceived and executed in Hartford, Conn. As representing diametrically opposite views of the three-wheeled problem, the former has its motor mounted over the front wheel by means of which the machine is steered as well as propelled. The latter is driven from a single wheel in the rear, though the front wheels are employed for guidance.

Another unusual type, though not strictly a new car except in the sense of mak-

ing its first appearance at a show, is the Only car. This creation is possessed of a 12 horsepower single-cylinder engine of  $5\frac{1}{8}$  by 10 inches dimensions, but otherwise is not particularly extraordinary in construction. It is built for speeding purposes chiefly, and is guaranteed to cover 30 miles on a gallon of gasoline, to go at the rate of 60 miles an hour, and also is guaranteed free of repairs, or rather repairs free, for one year.

A no less striking car in its way, though possessed of features which have gained wider recognition in this country, is the new underslung Krit, which, owing to the manner of its suspension, is enabled to run with safety on a 96-inch wheel base with 36-inch wheels. Though quite well known, the Krit line has not before been shown at a New York exposition. Those who are familiar with its previous construction, however, will recognize in it sundry alterations, even apart from the peculiar features of the underslung model, such new points including the use of independent clutch and brake pedals, increased radiator capacity and other minor improvements.

Among the several makes of car which, though new to the show, already are well known locally because of their solid characteristics, may be mentioned the Bergdoll, which now is equipped with a unit power plant of the four-cylinder type, having a particularly neat block motor with double ball bearing crank shaft, water jacketed intake pipe and other essentially modern features. The pressed steel rear axle and double universal jointed propeller shaft construction are new on the models which will be on view at the Palace. Another car which likewise is equipped with a unit power plant of considerable individual merit is the Cunningham. This car, which still ranks among the comparatively new products, though by no means an untried one, also has the advantages of valves mounted in the head, dust-proof valve gear and offset cylinders.

Other cars which properly belong in the same general class are the Carhartt, Lion, Warren-Detroit, Abbott-Detroit and Washington. The latter machine, by the way, while it is practically unknown to the New York showgoer in its present form, is not strictly new to New York shows inasmuch as it made an initial appearance some years ago at the Palace at which time it was graced by two engines—one engine to make it go and the other to make it go fast. Since that method of construction was abandoned, however, the machine has risen to greater prominence through actual road achievements.

As typifying what, perhaps, will strike the impartial observer as one of the most noteworthy features of the exhibition as a whole, namely, the considerable proportion of cars in which a relatively large amount of automobile is offered for a relatively small price, the De Tamble line may be



instanced. The De Tamble cars are shapely and well proportioned creations that suggest the lines of the "topmost trio" in certain respects, but yet are placed within the reach of the man of moderate means. The McFarlan six cylinder product is another which is striking in this respect, it being made in both "big six" and "little six" styles, to sell at prices that are, to say the least, by no means immoderate. The Henry, Whiting, Cutting, Alpena, Penn and Petrel—the latter friction driven—are other cars belonging in the same general category.

The Johnson, while not a new product, is shown for the first time in New York, the last appearance of a product of the same builder being in the days when his



B. B. HUNTER  
Manager, Maytag-Mason Motor Co.

adherence was entirely to steam power. The Babcock is an eastern production of an old carriage builder, which is new to the show; the Gaylord, from Michigan, likewise is new and is featured in what is termed a utility model, which may be used for either business or pleasure. It may be converted to the latter use by adding a rear seat to the open tray body. The Maytag, or Maytag-Mason, as it perhaps is better known, which is now built in commercial as well as pleasure form, affords another illustration of the same general principle, one of the new models of that make being promised in a "two-in-one" form with interchangeable bodies for work and recreation, according to the owner's fancy.

The Otto will make its second appearance at the Palace, its first having been made a year ago, when it appeared in thoroughly rational form as a generally standard type of car of the medium-powered class. The Firestone-Columbus likewise is a car which is not new to the show. This year it will

#### CONSPICUOUS FIGURES IN THE "INDEPENDENT" TRADE



W. L. VELIE  
President Velie Motor Vehicle Co.

appear in somewhat improved form, with an unusual ignition combination in which the Atwater Kent single-spark system is employed in conjunction with the Mea magneto for ordinary running. One en-



J. J. COLE  
President Cole Motor Car Co.

tirely new model of 32-36 horsepower will be shown, which, like the other style which will be on exhibition, has a new type of pressed steel rear axle, and is mounted throughout on annular ball bearings.

The Paige-Detroit now is made with a four-cycle four-cylinder motor, instead of the two-cycle three-cylinder with which the earlier models were equipped, and has been considerably enlarged and improved. The Velie has, by way of new features, adjust-

able pedals, cork inserts in its three-plate clutch and bushed pistons. The Cole, which is equipped with a neat form of unit power plant, now has a ball bearing mounted change gear and a full floating rear axle, in place of the semi-floating equipment formerly used. Its cylinder dimensions have been increased from 4 by 4 to 4¼ by 4½ inches, and its wheel base from 115 to 118 inches.

In the realm of the business wagon, though not occupying a special department of the show, will be revealed not a little of real ingenuity as well as novelty. One of the most striking vehicles of this class will be the American Standard, as it must be known to distinguish it from the older and perhaps more familiar American truck



H. P. STAVER  
President Staver Carriage Co.

which is made in Lockport, N. Y., instead of in Detroit. The American Standard is built on the four-wheel drive plan, but with its front and rear axles swivelled, instead of being rigidly attached to the frame, so that it is steered from both ends. Besides enabling it to turn in very short radius, therefore, this arrangement is so constituted that the vehicle may be made to run obliquely across the street upon proper manipulation of the steering gear—a feature which at times may be put to very good use. The motor, which is of the horizontal opposed pattern, is mounted in the center of the vehicle and drives by chain to both axles.

In the Seitz may be found another example of originality in truck design. It is of the friction drive type, but the transmission is arranged on a very novel plan. The drive is transmitted through a central disk which is directly driven from the engine. Four driven disks, two on each side of the driver, are arranged to pinch the lat-

ter in order to secure the necessary driving friction without end thrust. The degree of friction is regulated by means of a hand lever, but the changes of speed are obtained by rocking a toe-plate on the floor board which has the effect of putting in motion a worm-gearred arrangement, driven by the engine, by which the driven disks are shifted across the diameter of the driver in order to make contact at different points on its surface. The operation of gear changing is thus rendered free from manual effort.

Among other new trucks is the Cass, which is a sturdy little product of approved construction and proven qualities, and also the Victor which, though new to the shows, already has made a name for itself in the field. The Penn-Unit, as its name implies, is built on the sectional plan, either the engine or change gear being demountable without necessitating the disturbance of other portions of the machine. In the new Oliver the same idea has been applied in a somewhat different manner, the entire power plant being removable complete. By removing two bolts and a strap, and breaking the gasoline connection and disconnecting the operating pedals, the unit may be withdrawn, including the engine, change gear, radiator, magneto and muffler.

The Kelly, formerly known as the Frayer-Miller, while it has not been exhibited under its present name, already is well-known for its successful application of the air-cooling principle. The use of forced draught through chimneys surrounding the cylinders is retained, but the construction of the machine has been altered in a few less material respects. The Buffalo is another car which has not been exhibited in the shows under its present name, though well known in service. It has been considerably improved in the development of the latest types by the adoption of such features as spring radiator suspension, removable sprocket rings, counter shaft brakes and, on the 1,500-pound type, selective gear.

In the class of lighter machines which are new may be mentioned the Ideal, which is equipped with a "fool-proof" change gear system, which is intended to protect the gears from abuse and is of 1,000-pound capacity. Like many other of the new light commercial cars, it is magneto equipped. The Little Giant is another of the same sort, its features being thoroughly original, however, and revealing considerable ingenuity. Like the former vehicle, it is equipped with an opposed motor of compact construction. In the Geneva the opposed motor is rendered even more accessible than commonly is the case with motors of the opposed type by placing it very low down in front. In the Cortland, the purchaser is offered the somewhat unusual option of either air or water cooling. The machine is another of the relatively light class, and is built in ten-passenger bus form as well as for delivery duty.

Certain of the commercial vehicles which are familiar to visitors at the Palace shows of the past and also to those who observe the vehicles which are in daily use upon the streets in considerable numbers also will be included among the exhibits next week. Among them one which has progressed very steadily from a comparatively early beginning is the Gramm. The new one-ton model of this make is equipped with a block motor of approved pattern employed in conjunction with the unit type of power plant which is generally approved for touring cars of the lighter order. There also is a new five-ton model which is new, as well as sundry new features such as spring



HOMER WARREN  
President Warren Motor Car Co.

radiator suspension, original disk clutch design and enclosed brakes which are to be found on all models.

The Chase line is another which is well known. It is distinguished by an original application of air cooling with a single fan embodied in the flywheel to the two-cycle type of engine the use of lubricating oil mixed with the fuel is another point which is a little out of the ordinary though approved by many engineers. Recent improvements in the line include the use of heavier steering gear parts and wheels, larger rear axles and a wider steering lock. The model J, which is of 30 horsepower, has 36-inch wheels in front and 38-inch in the rear, equipped with solid tires, and is fitted with a cone clutch and selective type of sliding gear transmission.

The new onitor model B is similar in many respects to the A model formerly produced, but has a 24 horsepower motor, selective sliding gearset, cone clutch, double brakes and in general is of much heavier construction. The Hartin, which likewise is built for delivery purposes, has an original form of power plant, in which the engine, change gear and counter shaft are built as a unit and suspended from three points.

The complete list of exhibitors and the wares they display follows:

#### Cars and Trucks.

- Abbott Motor Co., Detroit, Mich.—Abbott-Detroit pleasure cars.
- Alpena Motor Car Co., Alpena, Mich.—Alpena Flyer pleasure cars.
- American Motor Truck Co. of Michigan, Detroit, Mich.—American trucks.
- American Motor Truck Co., Lockport, N. Y.—American trucks.
- Atterbury Motor Car Co., Buffalo, N. Y.—Buffalo trucks.
- Babcock Co., H. H., Watertown, N. Y.—Babcock pleasure cars.
- Bader, C. S., New York City—Lexington pleasure cars.
- Bergdoll Motor Car Co., L. J., Philadelphia, Pa.—Bergdoll pleasure cars.
- Beyster-Detroit Motor Car Co., Detroit, Mich.—Beyster-Detroit trucks.
- Carter Motor Car Corp., Washington, D. C.—Washington pleasure cars.
- Carhartt Automobile Corp., Detroit, Mich.—Carhartt pleasure cars.
- Car Makers Selling Co., Chicago, Ill.—De Tamble pleasure cars.
- Cass Motor Truck Co., Port Huron, Mich.—Cass trucks.
- Chase Motor Truck Co., Syracuse, N. Y.—Chase trucks.
- Chicago Pneumatic Tool Co., Chicago, Ill.—Little Giant trucks.
- Clarke-Carter Automobile Co., Jackson, Mich.—Cutting pleasure cars.
- Colt-Stratton Co., New York City—Cole 30 pleasure cars.
- Columbus Buggy Co., Columbus, Ohio—Firestone-Columbus and Columbus electric pleasure cars.
- Correja Motor Car Co., New York City—Correja pleasure cars.
- Coleman Motor Car Co., Iliion, N. Y.—Coleman trucks.
- Clark-Norwalk Co., Brooklyn, N. Y.—Clark and Norwalk pleasure cars.
- Cortland Motor Wagon Co., Cortland, N. Y.—Cortland trucks.
- Crawford Automobile Co., Hagerstown, Md.—Crawford pleasure cars.
- Cunningham & Sons Co., J. M., Rochester, N. Y.—Cunningham pleasure cars.
- Darre, Richard B., New York City—Cyclonette pleasure cars.
- De Tamble Motors Co., Anderson, Ind.—De Tamble pleasure cars.
- Demot Car Sales Co., Detroit, Mich.—Demot pleasure cars.
- Findlay Motor Co., Findlay, Ohio—Findlay pleasure cars.
- Flanagan Motor Car Co., Brooklyn, N. Y.—Monitor trucks.
- Gaylord Motor Car Co., Gaylord, Mich.—Gaylord pleasure cars.
- Geneva Wagon Co., Geneva, N. Y.—Geneva trucks.
- Gramm Motor Car Co., Bowling Green, Ohio—Gramm trucks.

Hartman Sales Agency, L. M., York, Pa.—Hart Kraft trucks.  
 Hought Mfg. Co., Harry S., New York City—Hought and Herreshoff pleasure cars.  
 Henry Motor Car Sales Co., Chicago, Ill.—Henry pleasure cars.  
 Ideal Motor Co., Detroit, Mich.—Sage & Creighton trucks.  
 Imperial Auto Co., Jackson, Mich.—Imperial pleasure cars.  
 International Harvester Co. of America, Philadelphia, Pa.—International pleasure cars and trucks.  
 Johnson Service Co., Milwaukee, Wis.—Empress, Elite and Special pleasure cars and trucks.  
 Kelly Motor Truck Co., Springfield, Ohio—Frayer-Miller trucks.  
 Kelsey Mfg. Co., C. W., Hartford, Conn.—Motorette pleasure cars.  
 Krit Motor Car Co., Detroit, Mich.—Krit pleasure cars.  
 Lion Motor Car Co., Adrian, Mich.—Lion pleasure cars.  
 McFarlan Motor Car Co., Connersville, Ind.—McFarlan pleasure cars.  
 Martin Carriage Works, York, Pa.—Martin trucks.  
 Maytag-Mason Motor Co., Waterloo, Ia.—Maytag-Mason pleasure cars.  
 Metz Co., Waltham, Mass.—Metz pleasure cars.  
 Michigan Buggy Co., Kalamazoo, Mich.—Michigan pleasure cars.  
 New Haven Truck & Auto Works, New Haven, Conn.—Moeller trucks.  
 Oliver Motor Car Co., Detroit, Mich.—Oliver pleasure cars.  
 Only Car Co., New York City—Only pleasure cars.  
 Otto, Albert L., New York City—Saurer trucks.  
 Otto Motor Car Co. of New York, New York City—Otto pleasure cars.  
 Otto Motor Car Co. of New York, New York City—Crown trucks.  
 Owosso Motor Co., Owosso, Mich.—Owosso trucks.  
 Paige-Detroit Co., Detroit, Mich.—Paige-Detroit pleasure cars.  
 Parry Automobile Co., Indianapolis, Ind.—Parry pleasure cars.  
 Paterson Co., W. A., Flint, Mich.—Paterson pleasure cars.  
 Penn-Unit Car Co., Allentown, Pa.—Penn-Unit trucks.  
 Penn Motor Car Co., East Liberty, Pa.—Penn 30 pleasure cars.  
 Quinby & Co., J. M., Newark, N. J.—Isotta pleasure cars.  
 Roder Car Co., Brocton, Mass.—Roder pleasure cars.  
 Rost, Otto F., New York City—Black Crow pleasure cars.  
 Scioto Auto Car Co., Chillicothe, Ohio—Arbenz pleasure cars.  
 Spencer, Llano, Briner Co., New York City—Petrel pleasure cars.  
 Staver Carriage Co., Chicago, Ill.—Staver-Chicago pleasure cars.

Velie Motor Vehicle Co., Moline, Ill.—Velie pleasure cars.  
 Victor Motor Truck Co., Buffalo, N. Y.—Victor trucks.  
 Warren Motor Car Co., Detroit, Mich.—Warren-Detroit pleasure cars.  
 West Side Garage & Motor Co., New York City—Seitz trucks.  
 Whiting Motor Car Co., Flint, Mich.—Whiting pleasure cars.

#### Automobile Accessories.

American Pedal Co., Automobile Club of America, Auto Wind Deflector Co., Automobile Supply & Mfg. Co., Behringer Radiator Co., C. A. Buffington, B. E. Mfg.



JOHN I. TURNBULL  
President Cass Motor Truck Co.

Co., Bristol Co., Bushey Demountable Rim Co., Calmon Asbestos & Rubber Works, Economy Tread Co., Fabrikoid Works, F. Z. H. Part Co., John H. Galvin, A. H. Green & Co., A. H. Kasner, A. J. Meyers, Inc.; W. C. Myron, New York Coil Co., John W. Rapp Co., Rector Eng. Co., Ross Heaton Mfg. Co., Safety Tire Co., Standard Metal Works Co., Sterling Machine & Stamp Co., Touring Club of America, Troy Carriage Sunshade Co., W. R. Winn.

#### Aeroplane Accessories.

Aerial Equip. Co., American Aero. Supply Co., American Metal Fusing & Cutting Co., Dean Mfg. Co., D & F Radiator Co., Elbridge Engine Co., N. Finkelstein, Grady Mfg. Co., U. S. McAdamite Metal Co., Vance Mfg. Co., E. J. Willis.

#### Kansas City Show for Dealers Only.

Kansas City, Mo., has established a precedent in the show business by refusing to sell space to any who are not real Kansas City dealers. It was determined by the Motor Car Trade Association, which will finance the show scheduled for Convention Hall during the week of February 13, that none but bona fide Kansas

City dealers will be permitted to exhibit; it is stated that thirty applications for space from manufacturers who have no established agents in the city have been turned down on this account.

#### Infant Prodigy Bobs Up in Illinois.

The argument as to who is the oldest driver of a motor car, which was started some few weeks ago by an item in the Motor World, apparently having been settled, a new one probably will be caused by the assertion that there is a 5-year-old girl in Edwardsville, Ill., who owns and drives a 20 horsepower Ford car. She is the daughter of Dr. and Mrs. E. H. Schwarz and it is declared that all the residents of the town where she lives can testify that she is able not only to steer the car, but to manipulate all the levers used in starting and stopping. The length of the child's arms and legs is not stated.

#### Quakers to Begin Guessing in January.

Weather conditions permitting, the Keystone State will be the site of the first of the 1911 crop of "roadability" contests, January 17 and 18, being the dates chosen for a guessing contest of the sort which is to be held under the auspices of the Quaker City Motor Club. Present plans provide for a start from Philadelphia at 8 o'clock in the morning of January 17, Harrisburg, Pa., being the objective point for the day. The return journey will be started at the same time on the following morning, and the contestants will check in at the Third Regiment Armory in Philadelphia.

#### Los Angeles Cards a January Racemeet.

The initial racemeet of the new year in the West is scheduled to occur on the Los Angeles Motordrome Saturday and Sunday, January 14 and 15. Six races for cars in classes D and E are on the program for decision on Saturday, and a like number of events constitute the balance of the program, which comes on the following day, when the largest race, 25 miles, will be run.

#### Gutenberg to Provide a "Fresh Air" Meet.

Someone who apparently believes there are enough people in the vicinity of New York anxious to pay for a chance to acquire chilblains and frost bites, has scheduled an automobile racemeet for January 2 on the old Gutenberg (N. J.) track. It is understood that all who attend must provide their own foot warmers.

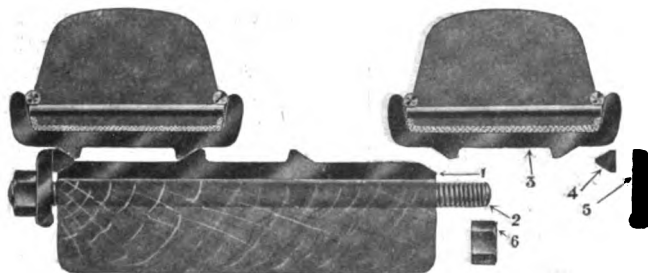
#### State Association Fixes Meeting Date.

The question of legislative reciprocity will be threshed out thoroughly at the semi-annual meeting of the New York State Automobile Association which has been called for 10 a. m. on January 7 at the Hotel Belmont, New York City. President Frank G. Webb will preside.

## RADICAL TYPE OF TRUCK TIRE

**Firestone Evolves Quick Detachable Rim for Solid Tire—Likely to Exert Far-Reaching and Important Effects.**

Because of its susceptibility to punctures and blow-outs, the pneumatic tire not unnaturally has received almost unremitting attention from those concerned with its production. As a result the improvement in the tire itself and the development of special rims suited to its needs leave little to be desired. The solid rubber tire, which



FIRESTONE QUICK DETACHABLE SOLID TIRE EQUIPMENT IN DUAL FORM

dates back much further, has received attention, of course, but as punctures and blow-outs are foreign to its nature, the attention has not been attended by startling results. The rapidly increasing use of motor trucks and the demands made by their great weight and the weight of their burdens has been, however, giving the tire manufacturers cause for renewed thought, and the direct outcome is the Firestone quick removable side-wire tire and rim, which is shown by the accompanying illustration, and which is of such a revolutionizing nature that it appears to mark almost an epoch in the solid tire industry. It is designed to permit the ready replacement of such tires by the truck driver himself or any other man able to use a wrench, which is the only tool required. The delays and lay-ups incident to tire repairs or replacement of a commercial vehicle are of far more moment than is the case with pleasure cars; they figure unpleasantly in balance sheets and can do much to make or mar the record of a truck. The meaning of the new Firestone tire and rim equipment, which is the product of the Firestone Tire and Rubber Co., of Akron, Ohio, is, therefore, apparent, and that it marks a big step forward and will have vital and far-reaching and helpful influence in the prosecution of commercial car campaigns is undoubted.

Of the illustrations, one shows a single tire mounted on the wheel, and the other, a sectional view of a rear wheel equipped with dual tires, one of which has been removed. In order to change tires, the nuts 6, of which there are 14, are removed, releasing the clamping flange 5. The tire, rim and all are then slid off in one lateral

movement; the clamping ring 4 is split and comes off with the tire. A spare tire applied to the rim is substituted merely by reversing the operation, it being assumed that one or two spare rims with tires already attached have been kept ready for use. Rims of equivalent size are interchangeable on all wheels, front and rear, single or dual.

As all tires are applied to the rims at any of the many Firestone applying stations, there practically is no danger of their not being on firmly and properly. The driver changes only the rim and does not replace the tire to the rim itself.

This equipment has undergone a thorough

test, and it is claimed to be of great efficiency, one of the largest truck manufac-



FIRESTONE EQUIPMENT FOR SINGLE TIRE

turers who tried it already having adopted it as regular equipment.

### Even the Mule Beat the Motor Car.

Florida has seen some fast and exciting automobile racing, but it is doubtful if ever half so much merriment was created as attended an event run December 26 at Jacksonville. It took the shape of a handicap race between a man, a thoroughbred horse, a mule and an automobile. The conditions of this unique contest were that the horse had to cover six furlongs, the mule four and a half, the runner 550 yards, while the automobile had to cover one and one-eighth miles, after being allowed a running start of one-sixteenth of a mile. While the handicapping between the live contestants was fairly good, the fact that the automobile finished about half a minute after the other participants had crossed the tape showed that something must have been overlooked. The horse won, the mule was second and the man third. The stunt constituted a feature of a horse racemect.

## THIRTEEN CONSTITUTE A "SALON"

**That Number of Importers to Display Wares in a Hotel Ballroom—Who and What Will be There.**

While the final touches are being added to the preparations for the annual exhibit of the Association of Licensed Automobile Manufacturers in Madison Square Garden, and while the curious are crowding the aisles of the Grand Central Palace, where the "independents" will hold forth, there will be a "parlor show" in the Hotel Astor, at which only imported cars will be exhibited. This "importers' salon," as it is fondly styled, is to be opened on January 2, and will continue up to and including January 7. It will consist of 13 exhibits.

The big ballroom of the Hotel Astor has been engaged for the purpose, and will be divided into 13 sections—one for each of the exhibitors. No accessories or commercial vehicles will be shown. Among the cars there will be several that were displayed at the London and Paris shows, among them the Napier, fitted with wire wheels; a six cylinder Darracq; two Isotta-Fraschinis; an Itala and an English Daimler, and two Renault polished chassis. One car new to Americans will also be seen at the Astor, the Zedel, a French production. The Panhard exhibit will include a number of the new "valveless" engine models, and it also is probable that a complete car fitted with a 30 horsepower Knight motor will be shown, as the car is on the way and may reach New York in time for the opening of the exhibit. The 13 who will compose the "salon" are as follows:

Benz Automobile Import Co. of America, Benz, Burr & Co., coachwork; C. G. V. Import Co., C. G. V. and Zedel; Cesare Conti, S. P. A.; De Dion-Bouton Selling Branch, De Dion-Bouton; A. T. Demarest & Co., Itala and English Daimler; Henry Ducas & Co., Darracq; Glentworth & Jackson, Napier; Panhard & Levassor Automobile Co., Panhard; Peugeot Import Co., Peugeot; J. M. Quimby & Co., Isotta-Fraschini; Renault Freres Selling Branch, Renault; S. P. O. Automobile Co., S. P. O. and Vinot.

### Two Odometers That Beat as One.

In theory, at least, all odometers should register exactly alike; practice, however, does not always serve to bear out theory. A remarkable instance in which it did bear it out was furnished by the journey from New York to San Jose, Cal., which recently was completed by Mr. and Mrs. W. T. Warren in a Renault car. They had one Warner Auto-Meter fitted on the dash and another in the tonneau, and both instruments recorded alike to the very last tenth, viz., 3,750.2 miles.

# Single Spark Ignition; Its Principle and Effect

Increasing attention, and not without reason, is being drawn to that comparatively new form of ignition, the single spark. It is being employed on the cars of not a few manufacturers of repute, and its growing use is the best evidence that it is doing good work and that it must be considered a serious competitor of the more familiar types of ignition.

The distinguishing feature of the system is the contact-breaker, which replaces the vibrator of the more familiar jump spark ignition. Insofar as its application is concerned, it may be used with single or multiple coils, which is to say with either high tension or low-tension distribution, and it may be used either as an independent or a double system in conjunction with the magneto. The particular advantages claimed for it are that it provides absolute certainty of sparking, accuracy of timing and synchronism, and also that it secures a high degree of battery economy.

The single spark is just what its name implies—one spark, in distinction to a stream of sparks. In effect it is much the same as the result produced when the trembler of an ordinary coil sticks inadvertently immediately after contact is made at the timer. To comprehend its advantages it is necessary to bear in mind the nature of the common jump spark somewhat in detail. Though roughly speaking, it is an abbreviated spark, nevertheless, its absolute nature is somewhat different. The quality and volume of the spark is uniform at any speed of the motor, and the duration of contact is just sufficient to produce a perfect spark for each cylinder with the minimum of battery consumption. Instead of the greater part of the current being wasted, as in the vibrator coil, every particle of the current is utilized.

In the ordinary jump spark systems, although the electrical discharge produced at the gap of the plug commonly is referred to as a spark in the singular sense, the actual effect is that of a stream of very minute sparks flowing with enormous velocity, each individual spark being caused by the breaking of the primary contact by the vibrator. Therefore, the number of sparks depends on the "speed" of the vibrator; or with the engine running, on the "speed" of the vibrator, the number of revolutions per unit of time by the engine and the length of arc of contact on the primary timer.

A point strongly emphasized by single spark advocates is that the first, or "pilot" spark, always is largest, their reasoning for this is that after the primary contact is made at the timer and broken at the vibrator an infinitesimal lag occurs until suf-

ficient voltage has been built up at the gap of the plug to overcome the resistance. Once this is overcome, however, there is less resistance in its path, owing to the heating effect of the "pilot" spark, and the decrease of the air resistance; the succeeding sparks, therefore, are of less intensity.

Thus, the idea of the single spark is, in brief, that the "pilot" spark is the actual source of ignition, and the remainder of the sparks is superfluous. In other words, that but one spark is required for each explosion. By eliminating all but the "pilot"



THE ATWATER KENT UNISPARKER

spark, it is claimed that no difference results in ignition effect, while considerably less energy is required of the battery.

In the development of this system, attention is concentrated on creating high intensity and great volume in the single discharge, and on ensuring a very positive action in the contact-breaker. The ordinary vibrator can miss several vibrations and still not "kill" the spark but only delay it, but the single spark generator must act every time, and this its advocates claim it never fails to do.

The system is productive of smooth and even running of a multiple cylinder motor, because each cylinder receives its ignition at precisely the same relative point on the stroke of the piston. This is very difficult and never attained with the use of vibrator coils, as no two vibrators can be adjusted exactly alike and the difference in the coils themselves renders synchronism impossible, which results in the loss of efficiency at high speeds particularly.

The system in general is designed for the use of batteries, although it is used and may

be used in conjunction with a high tension magneto machine also. One make and break in the primary circuit governs the spark in all cylinders, and but one spark coil and a distributor are used. The method of contact varies in systems of different manufacture, some employing a mechanical and others a magnetic break, allowing but one contact for every ignition.

In general, single spark systems differ one from the other mainly in the construction of the contact-breaker, which is the heart of the system.

There are several systems now on the American market, most prominent being the "Unisparker," the Briggs-Stratton, and the Delco.

The "Unisparker," produced by the Atwater Kent Manufacturing Works, Philadelphia, Pa., was first in the field. It best may be described as a simplified form of a spark generator which they manufacture also. It is designed for use on cars where the arrangement of cam or magneto shafts makes it inconvenient to install the generator, or where it is desired to use an outfit of somewhat lower cost. It consists of two separate units, a contact maker and distributor, adapted to go in place of the ordinary timer on any convenient half-time shaft, and a spark coil, complete with condenser and switch, for the dashboard.

The moving parts of the contact maker are the notched shaft A, the steel snapper B and the contact arm C, which may be seen in Figs. 1A, 2A and 3A. The rotation of the shaft draws the snapper to the position shown in Fig. 3A. Here it snaps off, and, riding up on the rounded part of the shaft, exerts a wedging action against the steel hook D of the contact arm. This forces the contact spring E against the insulated platinum-pointed contact screw F, and closes the circuit. Further movement of B permits D to snap off, as in Fig. 1A, thus suddenly breaking contact at the platinum points.

The duration of contact is the time it takes the snapper B to slide past the hook D. It may be adjusted for a long or a short spark by turning the screw L, but the duration is always brief.

The "Unisparker" is furnished to run either clockwise or counter clockwise, according to which direction it is required to turn.

The distributor casing is of hard rubber, and four posts in it connect to the spark plug cables. A central post receives the high tension current from the coil and carries it to the distributor blade. This blade



is carried by a hard rubber block removably mounted on the contact maker shaft.

A coil of the usual size is mounted on the dash, and enclosed within it is the condenser. When the switch is closed, snapping the lever to the right against a special contact permits the engine to be started on the spark when there is gas in the cylinder.

The positive and negative wires from the battery are connected to posts under the coil box. Two primary wires run from the coil to the contact maker, and one secondary cable connects coil and distributor to the spark plug. The body of the con-

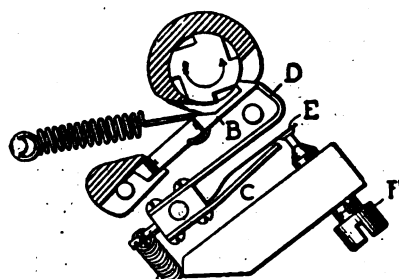


FIGURE 2A

tact maker is rotated by a lever in the ordinary manner for spark advance and retard.

Ordinarily, access is needed but for one thing, and that is to adjust the contact screw once in about 500 miles. By removing the side cover, all parts are exposed, giving access to this adjusting screw as well as to everything else.

Another form of single spark ignition having the contact-breaker operated mechanically is the "B & S Igniter," manufactured by the Briggs & Stratton Co., Milwaukee, Wis.

The novel feature of this device is the

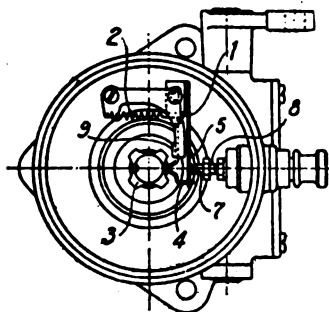


FIGURE 1B

combination of a spark coil distributor and contact maker in a single unit, the entire outfit being contained in a metal case. A single non-vibrating coil is used in connection with the "Igniter" for any number of cylinders.

There are but two moving parts in this new model contact maker, the contact arm and a cam provided with a number of points corresponding to the number of cylinders used. In the accompanying illustrations Fig. 3 shows a part of the operation. The lever B rests normally in the path of cam A; this cam in its rotation engages the

lever, causing the contact points C to be brought together, the points being separated by the spring attached to the lever B as the cam continues in rotation.

In order that the duration of contact cannot vary with the speed of the engine, and that the motor cannot stop in such a position as to leave the contact closed, a new

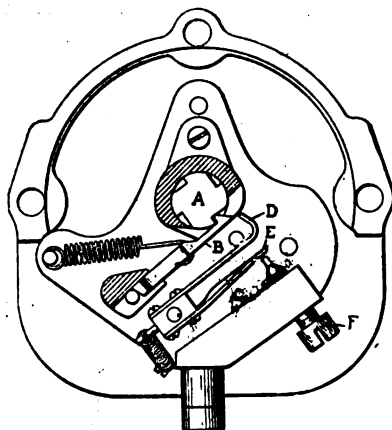


FIGURE 1A

principle has been brought into use. By a combination of mechanical and magnetic features, the breaker is made to provide a fixed duration of contact regardless of engine speed, and it is impossible for the engine to stop in a position to leave the circuit closed.

Another feature is that the transformer coil itself is carried in the rotor of the igniter, and so placed that the core of the coil rests in a vertical line with the cam of the contact maker. The cam A in Fig. 3 is secured to a flat-headed plunger coming near to the core of the coil. These are so mounted in the driving spindle as to be free to slide up and down in the slots, which serve as guides. They are, however, held against the upper limit with the cam in the plane of the contact arm B by a spring. When the cam A is in its normal

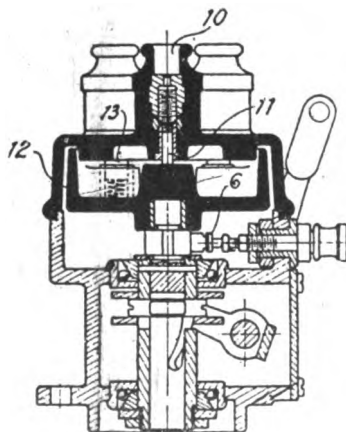


FIGURE 2B

position in the plane of the contact arm, the rotation of the cam caused the contact points C to press together and separate, which, without other provision, the duration of contact would vary with the motor

speed. However, the instant the contact points C are brought together, the current passing through the primary winding causes the core of the coil to become magnetized, thus attracting the plunger and drawing it instantly from its normal position. The contact arm is then retracted by the spring L, pulling the arm over the top of the cam.

The instant the circuit is broken at the contact points, the cam is free to return to its normal position by the action of the spring, provided it has passed in its rotation from beneath the hook. In case the motor stops at the instant the points are in contact, it is obvious that the magnetic ac-

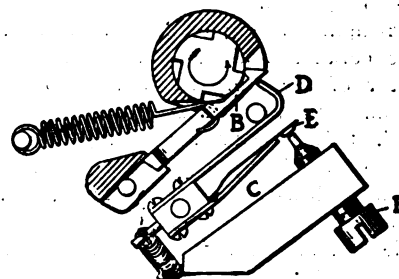


FIGURE 3A

tion of the coil will draw the cam from its normal position, and the contact arm will be pulled over the top of the cam, thus making it possible to close the circuit until the cam is rotated by starting the engine. At high speeds the duration of contact is so short that the magnetic action does not have an opportunity to work, being effective at low speeds, when the duration of contact would be so long as to be wasteful of current, and the balance of the transformer coil disturbed. Hence, the spring holding the cam and plunger against the upper limit does no work except at low

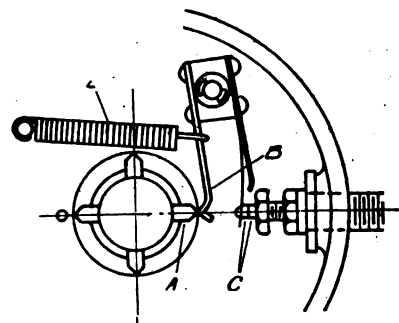


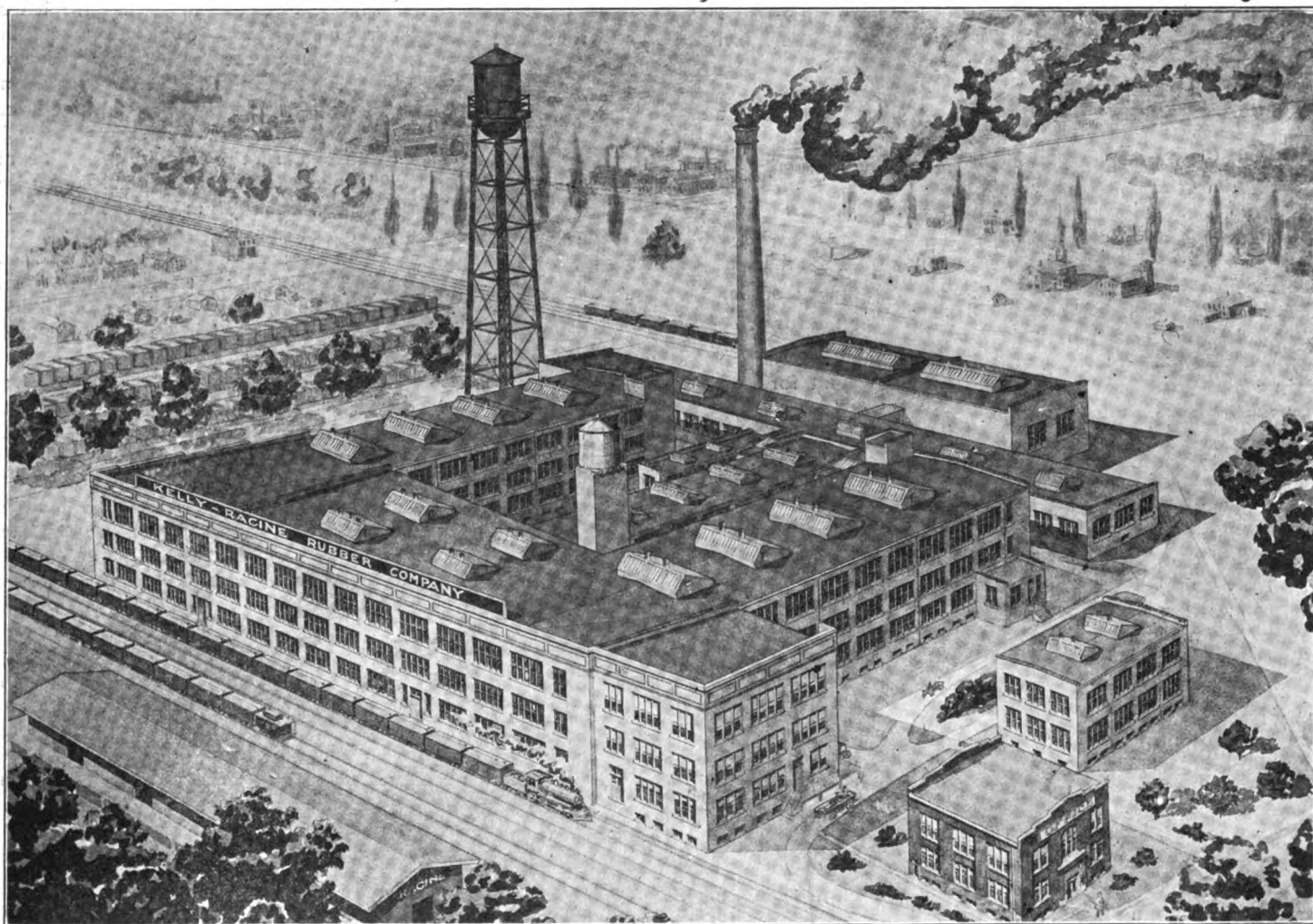
FIGURE 3

speeds, while at high speeds, the only spring in action is the one designated by L, and this works only between very small limits.

Rotation of the shaft backwards will produce no spark, although for two-cycle engines a type of contact maker can be made to operate in either direction.

Differing from both the "Unisparker" and the "B. & S. Igniter" in that it is magnetically instead of mechanically operated, is the Delco, manufactured by the Dayton Engineering Laboratories Co., of Dayton, Ohio. This system uses both batteries and mag-

## ANOTHER TIRE FACTORY PLACED AT THE SERVICE OF THE AUTOMOBILE INDUSTRY



KELLY-RACINE RUBBER CO.'S PLANT IN RACINE, WIS., WHICH JUST HAS BEEN COMPLETED

neto, with a relay and a high-tension distributor.

The relay, of high speed design, is for the purpose of breaking the primary circuit and thereby producing a spark from the secondary windings of the induction coils. It takes the place of the four vibrators on the ordinary four-unit coil, as it acts for each coil in turn as the commutator makes connection in this way, acting as what is commonly known as a master vibrator. However, it differs from the ordinary vibrator in that it makes but one spark for each contact of the commutator.

As stated, the relay is magnetic in its action, the contact-breaker being prevented from vibrating in an ingenious manner. The heavy winding of the coil, through which the primary current passes, draws down an armature, opening the circuit in the primary winding. This would then allow the armature to return, closing the circuit, the armature thus vibrating were it not for its being held by the magnetism of a second fine winding wound on the same coil, but shunted around the contact point. The current flowing through this, holds the armature un-

til the timer slips off the contact, when the armature is released, allowing the contact points to come together ready to break the circuit when the timer makes the next contact.

A kick type of switch on the dash is provided with a button which, when pushed in, opens this auxiliary or holding coil and permits the armature to vibrate as does any other vibrator, making a stream of sparks at the plug points. This is for use only when starting.

The distributor takes the high tension current from the coil, and distributes it to the proper cylinder. The distributor as a unit combines a primary contact maker, a high tension distributor and a means of obtaining spark control.

The distributor proper is made of hard rubber and mounted upon a metal housing. As shown in Figs. 1B and 2B, the primary contact consists of an arm 1, which is moved outwardly against the action of the coil spring 2 by a four-lobed cam 3. The contact arm is made up of three parts; i. e., a hub upon which are mounted the bent arm 4 made of steel and hardened, and the con-

tact spring 5. This spring is set with initial tension, which holds its outer end against the stop 6 of the steel arm.

The contact spring carries a platinum contact which makes connection with a similar point at 7 on the contact screw 8. The relation of the two points is such that they come together when the arm has moved about one-half of its full throw, the tension in the contact spring insuring a positive pressure at the contact points.

The movement of the arm is limited by a stop 9, toward which the arm is normally drawn by the coil spring 2. This spring is very light and is fastened to the arm close to its pivot. The short movement of the spring allows very high speeds on account of the absence of inertia.

The four-lobed cam is so formed as to impart the full movement to the arm in a small part of one revolution, thus avoiding any serious lag in moving parts or variation due to adjustment.

In the high tension distributor the current from the coil is introduced at the central terminal 10, which projects into the chamber at 11. Upon the disk 12 is mount-

ed a steel brush 13, which is connected to the center terminal by a bar. As the brush is normally held against the head of a light spring, it makes contact with the outer terminals successively and at the instant the contacts are closed in the primary circuit.

The flange on the disk projecting into the groove in the distributor head very effectively insulates the terminals from the housing and other points to which the spark might jump.

Spark control is effected by means of a spiral slot in the distributor sleeve, upon which the four-lobed cam is rigidly mounted. A bronze ring, slidably mounted upon the sleeve, carries a pin which passes through the spiral slots. A forked yoke, carrying two pins which co-act with the groove in the ring, is mounted upon a shaft, to which the time lever is connected. The timer shaft on the engine projects into the distributor sleeve and is split to engage the pin projecting through the spiral slots. Rocking the yoke by means of the timer lever causes the ring to slide along the sleeve. The spiral slots in the sleeve cause it to rotate; thus changing the relation between the four-lobed cam and the engine shaft as desired.

#### Most Novel Excuse for "Joy Riding."

To Robert Genslinger, of St. Louis, Mo., the world is indebted for a new excuse for "joy riding." When recently he landed in New Orleans and saw a touring car standing unguarded at the curb, he jumped in and drove off. When the police nabbed him a few hours later, he claimed to have been desirous of "learning the names of the various streets as quickly as possible," and had "borrowed" the car for the purpose. The magistrate took a different view of the matter and held him for grand larceny.

#### Symptoms of Improper Radiation.

Sometimes it is possible to discover the fault in a radiator which is working poorly merely by testing it with the bare hand. If the circulation is impaired through the clogging of certain areas, such points will be found to be much cooler than surrounding parts. Frequently when this is the case the difficulty may be remedied merely by flushing out the system with a hose, packing the filling orifice around the latter with a bunch of waste in order to get the benefit of the full pressure.

#### When Steering Gear Becomes Stiff.

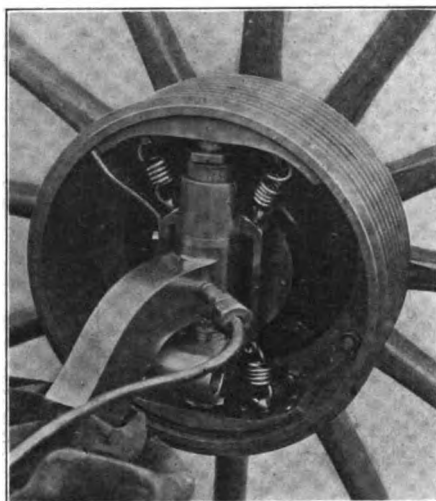
When the steering gear becomes stiff it should be looked over immediately and the cause remedied. One rare, though serious, difficulty which may occasion binding of the gear is the breaking of one or more balls in the steering knuckle bearings. If such a bearing is neglected when out of order there is considerable likelihood that it may jam suddenly, rendering the entire steering gear inoperative.

## THE MOTOR WORLD

### BRAKING BY FLUID PRESSURE

#### New French System Provides for Action On All Four Wheels—Perfect Equalization Assured.

Hydraulic brakes, like hydraulic clutch and change gear mechanisms, long have been in the inventors' eyes, though they have failed to assume concrete form until within a very short time. In respect to the hydraulic brake, in particular, the possible advantages of fluid, instead of metallic, connection for actuating the working parts have remained practically unrecognized until the present foreign show season. One system



PILAIN HYDRAULIC BRAKING SYSTEM

of the sort recently has been brought out in England under the Weight patents, while the exhibits at the Paris Salon included at least one make of car, namely, the Roland Pilain, on which hydraulic braking of all four wheels was a striking feature.

For it is a significant point that the application of the hydraulic principle lends itself very readily to the adaptation of brakes to the hubs of the front wheels, and so possesses double interest, since the subject of front wheel braking is very much to the fore abroad just at this time. The Pilain chassis, therefore, attracted considerable attention among engineers in particular.

As far as the hydraulic system is concerned, it consists merely of a pump, which is actuated from the engine, an oil reservoir and a controlling valve. When the valve is set in position to apply the brakes, the oil is carried into a cylinder located in each brake drum where it acts upon two pistons, forcing one up and the other down, and thus applying the brake segments to the drum. As the oil pressure is distributed uniformly throughout the system, it follows that all brake shoes are applied with absolutely uniform pressure, the braking effort thus being equalized within the limits of wearing surface conditions.

The mechanism of the front wheel brakes is shown by the accompanying illustration. It will be observed that the knuckle construction is of the so-called reversed Elliott type, in which the stationary pivot pin is of large diameter and made hollow to form the cylinder for the brake. Two plungers are fitted within the cylinder, each of which is connected with one of the two segmental brake shoes, the latter being held away from the broad-faced drum by means of two small helical springs. In this particular case the steering arm is brought out underneath the axle. The illustration also plainly indicates the position of the small tube and connection through which the oil is fed to the working cylinder.

As was pointed out in a general review of the subject recently printed in these columns two distinct classes of extra stress have to be provided against in the design of front wheel brakes. One of these is the tendency to swing the wheels about the steering pivots as a result of the resistance to their revolution, which is imposed by the brakes; the other is the tendency to displacement and flexure of the axle as a consequence of the added strain which it is called upon to bear. The first of these two difficulties is taken care of in the present instance, by the form of pivot construction employed. The second, however, appears not to have been provided for in the construction of the end of the axle. Therefore, it may be a matter of some question whether the system is of adequate strength just at this point. In other respects it appears to have much to commend it.

#### To Prevent Sooting of Oil Lamps.

After oil lamps have been lighted for a few minutes, the heat generated makes the oil more volatile and it burns more readily. Therefore, it is well when lighting up to turn down the wicks slightly to allow for this brightening, as otherwise the glasses and reflectors will accumulate a coating of soot which is very hard to remove without danger of damage to the plating.

#### To Remove Obstructions in Carburettors.

By unscrewing the union of a gasoline pipe and pushing the rubber end of a tire pump connection over it, enough pressure generally can be obtained to loosen any obstruction or sediment in the pipe by a few strokes of the pump. When applied to the end of the pipe attached to the carburetter, the needle valve also will be freed of any dirt.

#### Care Needed in Applying Blow-Out Sleeve.

In putting a blow-out sleeve in a shoe great care should be taken to see that the sleeve fully overlaps the blow-out and extends well past it on every side, as otherwise the new tube will blow out around the sleeve, and, increasing the dimensions of the original break, cause injuries which it is impossible to repair.

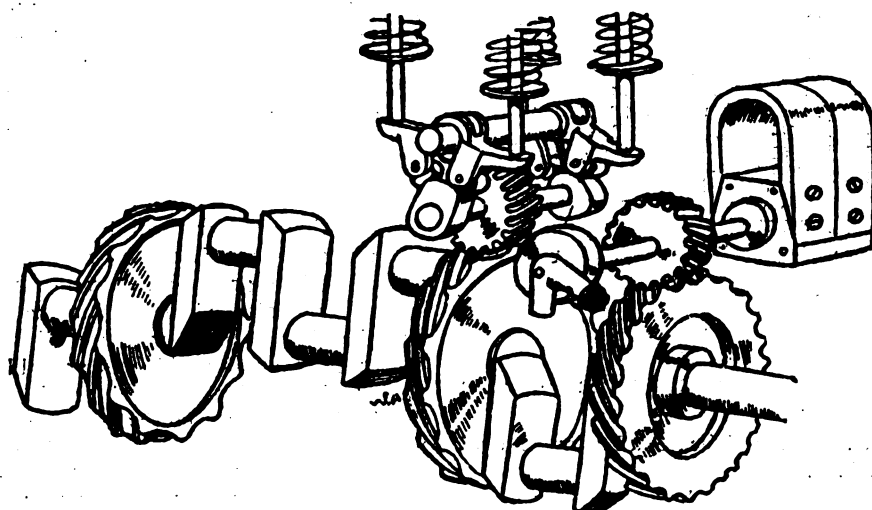
### VARIATION IN POPPET VALVES

**Dutch Engineers Responsible for Radical Change—Skew Gearing Permits Four Cams to Operate Eight Valves.**

So few variations in poppet valve gear have been developed within the past year or two that in many quarters the impression prevails that the possibilities of novelty have been completely exhausted. But that such is not the case is demonstrated in the latest models of the Spyker car, a Dutch production, which, at one time, was quite widely known, though principally on the other side of the water. In the new models,

The forward driving gear on the crank shaft serves to drive an auxiliary shaft, which operates the magneto and water pump. The second and third driving gears are mounted between the first and second, and third and fourth cranks, respectively, thus necessitating an unusual grouping of the cylinders. The third cam shaft also is used to drive the lubricating pump. While the general effect of the arrangement is to render the motor exceedingly compact and well balanced, the principal advantage claimed for it is that of silence in operation.

The new Spyker cars, the appearance of which indicates the result of a comparatively recent reorganization in the affairs of the company, are equipped with multiple



SPYKER SPIRAL GEAR SYSTEM FOR ACTUATING VALVES

which differ in many respects from their predecessors, the usual longitudinal cam shaft construction has been done away with, three short transverse shafts taking its place. As each of the three shafts is driven by skew gearing directly from the crank shaft, it follows that the crank case construction is considerably simplified, while all difficulties of the sort that sometimes result from the springing of long and weak shafts is eliminated.

The accompanying illustration indicates the nature of the arrangement, which is applied to a block type motor of four-cylinder construction, made in two sizes, one of 16 and the other of 18 horsepower. The inlet valves are placed on the left and the exhausts on the right. Each of the two transverse cam shafts actuates the valves for two of the cylinders. A single cam is mounted on either end of each; the cam at one end actuating a pair of rocker arms which lift the two inlets, or exhausts as the case may be, alternately, the other cam also actuating similar valves. Thus four cams are made to do the work for eight valves, the mechanism being reasonably compact and the operation as silent as it can be rendered by the elimination of spur gears.

disk clutch, three speed sliding change gear and shaft drive. The rear axle housing and differential casing are made in the form of a single steel casting, after a fashion familiar in this country and the car in a number of other respects is in line with up-to-date practice.

#### The Reason For the Front Doors.

Anyone who fancies that it is the philanthropic spirit that leads owners to have their cars fitted with the front doors for the convenience of the driver is deceiving himself in a majority of the cases. The comfort of the driver is in a measure considered in the arrangement, but the fact that the seat beside the driver is rendered more comfortable for the passenger who occupies it is the controlling factor. The chauffeur's comfort is merely incidental.

#### Carburetors Affected by Differing Fuels.

Carburetors in which a needle valve is provided for the regulation of the amount of gasoline supplied from the jet very often require readjustment when a different grade of gasoline is used. This should be noted carefully as erratic running often is attributed to other causes than to the change of fuel.

### CONSTANT PRESSURE CARBURETOR

**Unusual Features Incorporated In a New Foreign Device—Advantages Claimed Over Variable Vacuum Type.**

Combining the advantages of what its inventor terms constant pressure regulation with those of automatic scavenging for the intake manifold and cylinders when coasting with the throttle closed, a new type of carburetor just has been brought out in England which possesses a number of unusual features. The device also is noteworthy in that it introduces for the first time in carburetor construction, so far as is known, the principle of the balanced valve, whereby regulation is rendered more uniform. The carburetor in question has been produced by W. Bourne Dale, an inventor of some prominence, and has the particular merit of being able to deliver its mixture up to the full capacity of the engine without strangling.

"Carburetors may be divided broadly into two classes—those with a constant difference in pressure between the inside and outside, and those in which this pressure is variable," says the inventor in explaining the principle of the new carburetor. "To the former class belong those in which the air supply is controlled by some form of air regulator dependent for its action on the suction of the engine; to the latter belong carburetors in which the air supply is controlled either by hand or mechanically in conjunction with the throttle.

"A satisfactory carburetor may be constructed embodying either principle," he continues, "but undoubtedly the most popular at the present time is the constant vacuum type. One advantage possessed by this pattern over the variable vacuum type is that, if it be properly designed, a supply of fuel with sufficient velocity of air to convert it into spray is assured at the lowest engine speed, and if it be fitted with an air-regulating device of ample area, its efficiency at high speeds is quite equal to the variable pressure type.

"The popularity of the constant vacuum type is therefore due to the present-day desire for an engine which shall be quiet and smooth running at low speeds, and yet possessing powerful torque and good accelerating properties.

"Many carburetors designed on constant vacuum lines do not give good results on account of the improper size and disposition of the constituent parts. The most usual fault is that the air-regulating device is of too small a capacity, necessitating the employment of a large choke tube to keep the partial vacuum normal at high engine speeds. Another frequent trouble is that the piston arrangement of the air regulator commonly in use on this type of carburetor



ter wears and allows air to leak past at slow speeds, resulting in the negative pressure becoming too small for satisfactory slow running."

Passing to a description of the new Dale carburetter, he pauses to define the requirements of the ideal automatic pressure regulator, or air valve, as it more commonly is termed, in a manner which is as thorough as it is explicit. "To maintain a constant negative pressure of, say, 0.5 to 0.75 pounds in the carburetter at any engine speed," he says, "the air regulator must possess the following features:

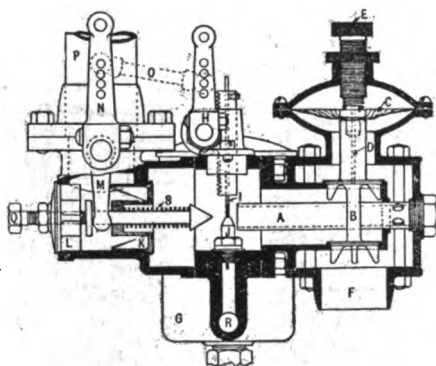
"It must be capable of passing the full quantity of air required at the highest engine speed; it must close absolutely tight at the lowest engine speed; the force tending to close the valve against the suction of the engine must be practically constant; friction should be eliminated as far as possible, and the action of the valve should be damped, so as not to vibrate with the pulsations of the engine; and, finally, to deaden the sound of the air entering the air regulator its supply should be taken from a chamber of some capacity to act as a silencer."

The manner in which these conditions have been fulfilled in the present instance may be gathered from the accompanying illustration which shows the carburetter in detail. In order to provide against leakage, and also to prevent deterioration in consequence of wear, the mushroom or poppet type of valve has been chosen throughout the device in preference to the more common piston type or even the simple butterfly valve. The air valve, which is indicated at B in the illustration, is of the double mushroom type, which is to say, that it is balanced against the effect of the suction and is absolutely free of any effects due to the suction. A fine bore duct is drilled through its stem at D, leading to a vacuum chamber which is sealed by the diaphragm C. Consequently all variations in pressure in the body of the carburetter and so in the intake manifold will be communicated to the chamber above the diaphragm, and the latter will be proportionately deflected by the free air pressure on its under side. In consequence of such deflections the valve itself is caused to fluctuate in proportion to the variation in engine suction, and so to admit greater or less quantities of air to the mixing chamber. Owing to the small area of the duct, however, it retards the flow of air sufficiently to prevent the valve from fluttering on its seat, and thus exerts a damping action on it.

The choke tube, through which a small supply of air is drawn at all times, is at A, with its orifice directly in front of the jet J. The opening of the valve is opposed only by its own weight and the light tension of a spring, which may be regulated by means of the adjusting screw E. The choke tube purposely is made small because it is

intended chiefly to supply a sufficiently strong blast of air to carburet the charge at very low engine speeds. Hence the air valve is partly open the greater portion of the time, its action being basic rather than supplementary.

The variable type of jet is used instead of the multiple type of jet, because, as the inventor believes, it may be made sufficiently large to be free from any tendency to clogging, and also because it permits of a finer degree of regulation. The needle valve by which the outlet from the jet is controlled is formed with two flats, one on either side, tapering down to chisel points. By moving the needle vertically, therefore, as it is possible to do by means of the rack and pinion gearing at the top and the



DALE CONSTANT PRESSURE CARBURETTER

lever H, a very delicate adjustment may be obtained.

Jet regulation may be carried out either by hand or by an inter-connection with the throttle, such as is shown by the dotted lines at O. It is the inventor's preference, however, to retain the fuel adjustment entirely independent of the normal throttle control, thus enabling adjustment to be made readily for varying running or fuel conditions, and also permitting the skilful driver to effect suitable fuel economies whenever he desires. The float chamber G, from which fuel is delivered to the jet through the passage R, is perfectly regular in its construction.

Like the air valve and jet arrangements, the throttling device also possesses some little originality. It is actuated by the rocking lever arrangement N-M, the latter being a fork which takes hold of the base of the valve K and opens it by direct pressure against the tension of the spring S. The valve opens toward the jet so that the suction of the engine naturally tends to close it, as does the spring. While the valve itself is of the mushroom type, it is provided with a sleeve-like extension in which several V-shaped slots are cut, thus allowing for very gradual opening and permitting delicate adjustment.

When the lever is vertical the throttle is held upon its seat or nearly so; it being possible so to regulate the screw Q as to permit the valve to be held slightly off its

seat in order to give a constant setting for running the engine slowly when the car is at rest and the clutch disengaged. When the lever is moved in the direction of closing beyond the vertical position, the throttle bears against its seat, and the valve L is thus admitting pure air to the intake pipe, while leaving the mixing chamber tightly closed. Such is the arrangement that the same spring tension which serves to hold the throttle on its seat when scavenging also acts to hold the scavenging valve on its seat when the throttle is open.

This provision for preventing air leakage into the mixing chamber, together with the fact that, owing to this arrangement and the form of the air valve, the seats may be ground when they develop leaking tendencies, is thought to render the device unusually durable in its nature and unlikely to develop the signs of old age which, in many otherwise satisfactory types, are prone to render them erratic after they have seen a good share of service.

#### Noise Made by the Timing Gears.

It often happens that in a perfectly new car the timing gears will be conspicuous not alone by the fact that they perform their functions properly but rather by reason of the noise which they make. This may be due to one or more of several causes chief among which is probably improper lubrication. Good stiff grease should be used to lubricate these gears, because as soon as the engine is started heat is generated and as the timing gears often are in a place from which the heat cannot radiate readily the heat is retained and gradually reduces the consistency of the grease until it escapes through bearings which would effectually hold it when in its original condition.

#### Many Reasons for Engine's Slow-Downs.

Several of the probable causes of the slowing down of an engine because of misfiring are that the carburetter may be choked with dirt at the jet or gauze filter, the batteries may be exhausted, the gasoline tank may be empty or air bound, the gasoline tap partly closed, there may be a leak in the piping due to a hole or an unscrewed union. In pressure fed cars there may be a leak at one of the pressure pipe unions.

#### What May Cause a Car to "Drag."

If the car seems to drag, even though the motor is running properly, the clutch may be slipping, there may be oil on the leather, the spring may need tightening or the leather may have reached the stage when it requires renewal.

#### When Motor May Run Without the Spark.

Faulty wiring, a short circuited switch or a badly carbonized piston or cylinder head often will keep the motor running after the spark is switched off.



## Electric Illumination and Its Requirements

During the past two years the manner in which electric lights have increased in use and popularity as a satisfactory means of illuminating motor cars has constituted a development that is fit to rank as such. The progress attained has not been so easy as may appear. The use of electricity for such purposes has entailed problems of its own, not the least of which has been the matter of installation, particularly in respect to the wiring. As in all other applications, there is need of standardization in specifications in order to guard both the manufacturer and the user, and although it is too early to expect any general agree-

insuring complete insulation and effectually preventing a ground as the result of a connection with metallic parts of the car. The boxes also protect wiring joints from accidental injury or strain.

"A special duplex cable having individual leads thoroughly insulated and the outside covered by lightweight armor of metal has been recently placed on the market, and is unquestionably superior for automobile lighting purposes. Equal protection and insulation can only be obtained by placing wires in copper or other metal tubes.

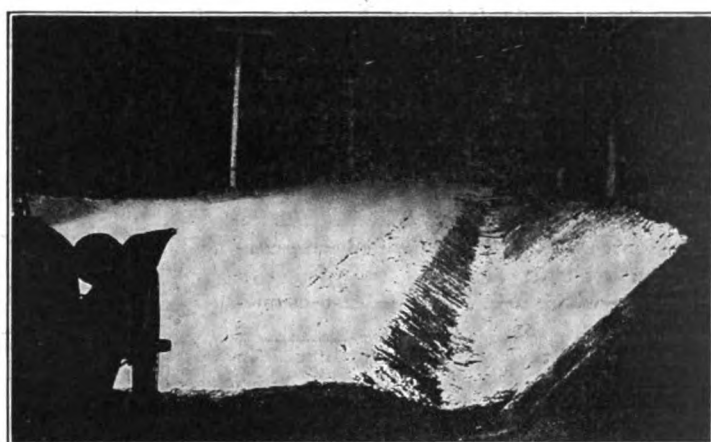
"Other kinds of wire can be used in connection with outlet and junction boxes; but

to have a fuse in the generator circuit as a protection to the generator. A fused outlet box also can be placed in the battery circuit, and in case of a short circuit the fuse will prevent premature discharge and injury to the battery. These fuse boxes are not absolutely necessary, but are recommended where a complete system is installed. They should be arranged to use the standard, new code, 15 ampere fuses, which can be obtained from any electrical supply house.

"It is very important that the connections between lamps and wires leading from outlet boxes be substantial and of such con-



FOCUSED FOR LONG LIGHT AHEAD



FOCUSED FOR BROAD LIGHT AT SIDE

ment among concerns supplying equipment of this nature, a good beginning has been made by the engineering department of the Willard Storage Battery Co., of Cleveland, Ohio, which, in a complete and informing bulletin, discusses the subject with a view of assisting users of their "Elba" equipment to secure the best results from it, but the range of the discussion is so broad that it may be said general in its instructiveness.

"Thorough insulation of all lighting apparatus from the car frame and body is most important," says the Willard company, "on account of the fact that most existing ignition systems have one side of the circuit grounded, and should an accidental ground occur on the other side, through the lighting system, both the ignition and lighting systems would become inoperative.

"Perfect insulation can be obtained only by placing wiring joints in suitable protecting boxes, a main junction box at the center of the system and outlet boxes where leads to individual lamps are joined to main feed wires on the chassis. Additional insulation should be provided by placing wires in conduit, the use of boxes and conduit

they always should be run through a continuous tube of insulating material, similar to circular loom. The wire should also be made that outside braids will not easily fray, and the insulation able to withstand heat, oil and water.

"Experience has shown that nothing smaller than No. 12 wire should be used for main leads. Smaller sizes may be used for short leads from outlet boxes to lamps, but these should not be less than No. 18.

"In view of the fact that the entire wiring system is subjected to vibration and other unusual service conditions, it is obvious that after a connection is made, soldered and taped, for best results it should be packed into a box as above described, and be firmly held there by means of clamps so arranged that they clamp the wire at the point where the leads enter the box.

"Boxes should be made as compact as possible, and it is suggested that aluminum is a good material, as it is light in weight can be worked into a compact space and made to have a neat appearance.

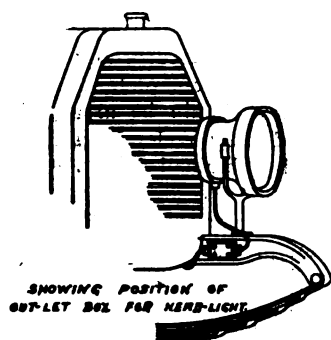
"Outlet boxes may be made in two styles, with fuses and without. It is of advantage

struction that contact is positive at all times. The ordinary type of slip connector has not proved satisfactory for the reason that in time the two sections of plug will work apart, thereby weakening the contact. It is recommended that a plug be used which will protect the wire where it is attached to the plug, and that wires be soldered inside of the plug in such a way that there will never be any liability of their getting loose or being grounded. All connections at lamp should be devoid of small screws and not be of the small or frail type connection that is liable to break or loosen.

"All sockets to which attachment plugs are connected and which will form an integral part of the lamp should be of what is known as the bayonet-lock type, adapted for use with Tungsten lamps fitted with Edi-Swan base and should be arranged for soldered joints.

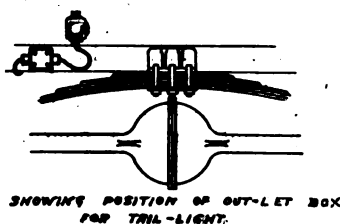
"These sockets should be made so that there are no screw connections, and be so constructed that the outside of the socket is insulated from the working parts, thereby insuring against a ground with the body of the lamp which will lead to the car frame."

The lamps themselves can be made by any of the well-known manufacturers, and may be of any desired shape or size. The headlights should be provided with parabolic reflectors which are true parabolas of one inch focus. These parabolas should be of at least 20-gauge metal, highly polished, and it is recommended that they have a triple coat of silver plating. A focussing device should be attached to the back of the reflectors, which will allow the lamp to be moved forward or backward, thus enabling



the driver to have a long shaft of light penetrating ahead or a wide beam as desired.

"Switches for automobile electric lighting should be of very durable and strong construction," declare the Willard people. "The back of the switch to which wire connections are made should be provided with terminals which will take at least a one-inch length of bare cable, and should be so made that the wire can be secured in position by heavy set screws. The connections on the back of the switch should be protected so that there are no metallic parts exposed. The switch should be so constructed that there is an independent



unit for each circuit—one for headlights, another for sidelights, etc."

As Tungsten lamps have long life and great stability at low voltages, automobile lighting systems have low voltage, a standard of six volts having been adopted on account of this also being the standard for ignition systems and permitting the best wiring arrangements.

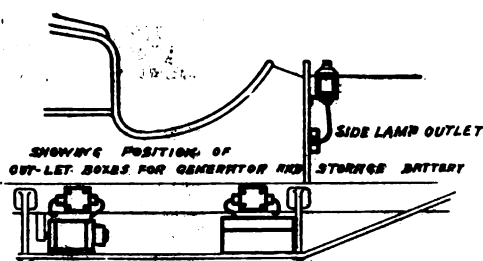
The lamps should be six volt and fitted with Edi-Swan bases as stated. The proper sizes are 3 to 6 candlepower for side lights, 2 to 3 candlepower for tail lights, 12 to 24 candlepower for headlights, although for the latter, lamps of various power may be used to suit the owner's convenience.

For cars that are generator equipped, 3 to 4 ampere lamps, giving respectively 18

and 24 candlepower are recommended, while on cars with straight storage and no generator a headlamp is recommended that does not exceed 2 amperes and giving 12 normal candlepower.

A point or "spot" of light is very desirable in headlamps, as a parabolic reflector would then give its highest efficiency, and for this reason the best lamps have a coiled filament for this purpose.

"The storage battery should be of a type known as the car lighting type, and should be similar to batteries used for railroad train lighting, which is similar service," says the Willard company in dealing with that phase of the subject. "It should be especially designed for electric lighting. Sparking batteries and other batteries not so designed should not be used, as they will not produce proper results, and if used, the service obtained from them will only be temporary. The battery should preferably be mounted on the running board, where the jarring and jolting is the least. It should be placed in a steel box and sufficiently blocked to keep it from shaking about.

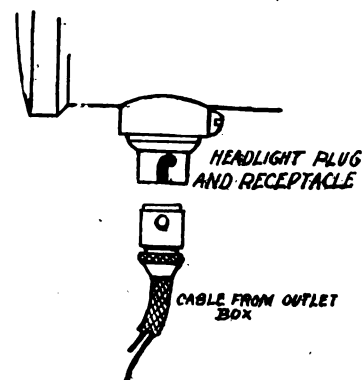


"The wires leading from the outlet boxes to the battery should be protected by rubber or other insulating bushings, where they pass through the battery box. At the battery the wires should be soldered to the terminals, which are provided by the battery company. These in turn should be bolted firmly to the posts of the battery and slightly soldered. The battery should be provided with ample head room so that a reasonable amount of acid will always cover the plates. This also will prevent acid from spraying out of the vent holes. The outside of the battery should be coated with an insulating paint thick enough to thoroughly insulate it from the steel containing box. The containing box should be provided with paraffined wood fillers to prevent the storage battery from touching the metal.

"The generator supplying energy for charging an automobile lighting battery should be constructed as carefully of good material as a generator for city or other lighting service. To give the best results the armature should have a large number of coils, not less than 48 is recommended; the commutator should be made of forged copper, and should also have a large number of segments. All coils on the machine should be thoroughly impregnated.

"The brush holders should be large

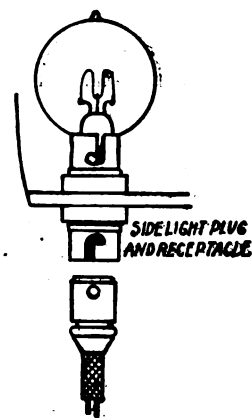
enough to contain two brushes each, and be so constructed as to permit adjustment to take up wear of brushes. The machine should meet all of the underwriter's requirements as regards heat limits, insulation, etc. The driving shaft and bearings, should be of generous proportions. To keep down the weight and bulk the machine should be of steel, laminated or otherwise. All terminals leading from the



field windings should be doubly insulated.

"Above all things, the generator should be slow speed. It should begin to charge the battery at 300 to 400 r.p.m., and give full load at 900 r.p.m. Above this speed and up to the maximum r.p.m. required of the generator there should be no change in either its voltage or output.

"It is advisable but not absolutely necessary to have it equipped with a cooling



fan. This fan would have two functions to perform—first, keeping perfect circulation of air; second, blowing out the dirt and dust which is a condition of automobile service.

"A machine constructed as above specified naturally will be of generous size and weight, but will have the very desirable qualities of slow speed and low heat factor. A machine of the lighting type should not be crowded.

"To prevent the battery discharging itself through the generator, an automatic switch should be placed in the circuit between generator and battery. The switch should automatically close the circuit when car speed reaches 4 to 6 miles an hour, and open it when speed is reduced to the same

value. Experience has shown that a simple type of polarized switch gives best results, as this construction operates by gravity, thereby dispensing with springs and complicated electrical devices.

"In connection with the automatic switch and mounted with it should be an ampere meter, having a dead-beat action with a divided scale, reading from 0 to 10 to the left, and 0 to 25 to the right. The function of this meter is to show how much current is passing from the generator into the battery.

"It will be noted that it is recommended that the ampere meter be placed in the

speed engines and two and one-half times engine speed for low-speed engines," is the wording of the Willard recommendation on this point.

"Position of the generator should be such that it is protected from mud, water and heat. It can be placed under the bonnet, on the running board, hung from the side frame, or placed under the footboard of the front or rear seats. In fact, in any position in close proximity to a shaft to which can be attached a driving sprocket.

"The three-circuit switch should be placed either on the dash near the center or on the frontboard under the seat at the center,

covered with a round hood, they should be placed on the side of the hood as near the lamps as possible. The outlet box for the tail lights should be attached to the rear portion of the frame. The outlet box for the battery should be bolted to the side of the frame near the battery. The outlet box for the generator should also be bolted on the frame near the generator."

#### How Motor Cars Serve Deer Hunters.

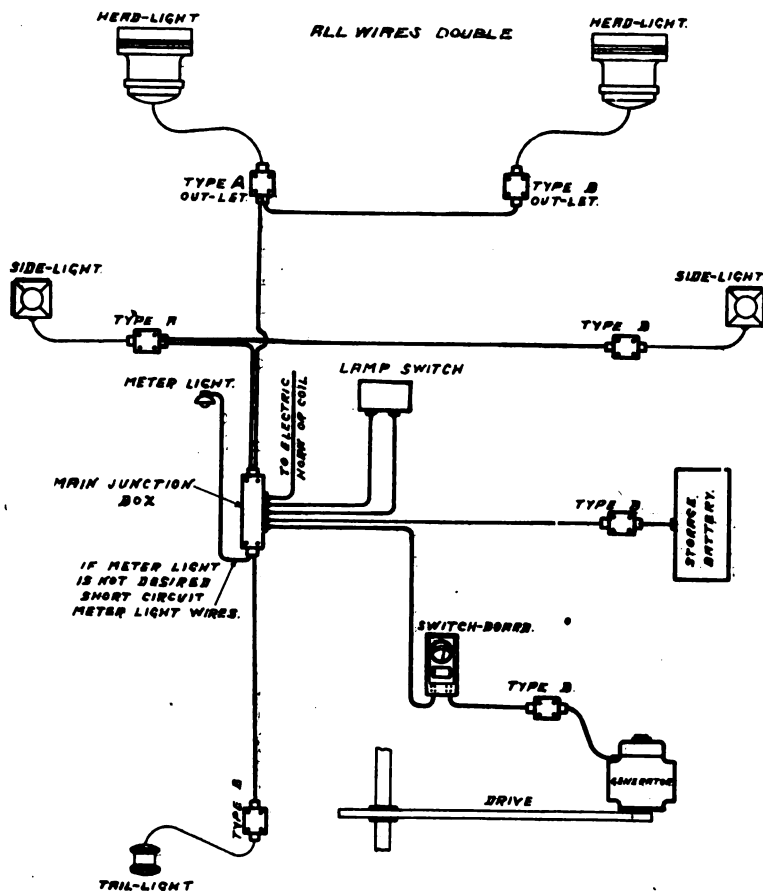
Nimrod, if he lived in the present day, would be up-to-date in his selection of a mode of travel and probably would further enhance the fame of his exploits by using an automobile to assist him in his capture of the denizens of the forest. Others have done and are doing it right along, though just how they enlist the services of this product of today in the pursuit of a sport which antedates civilization, long has remained much of a mystery to those who fancied that deer hunting entailed plunges into deep and trackless forests, and indeed to all except the select few who have used motor cars for the purpose.

The method used by E. A. Moross, of Indianapolis, probably is representative of the general practice and brings to light many of the advantages of the automobile on a hunting trip. While two of the deer he bagged were located while driving a Marmon roadster, the usual practice was to establish a camp where the car was left and to proceed therefrom on foot until the deer was captured. The car then was driven as close to the spot as it was possible to get and the deer loaded onto it, the return to the camp being made in quick time. In this way it was possible for the hunters to cover a great deal of ground in a small period of time. News of the location of game 25 or 30 miles away was the signal for a quick move to that locality, whence it was always easy to reach a village hotel or farm house, thus obviating the necessity of putting up with any of the discomforts of a temporary camp.

On the Moross trip, which started from Detroit and embraced four Michigan counties, the party of five secured eight deer, covering 865 miles during the week required for the excursion.

#### Bridges that Shorten Long Island Routes.

With the opening on December 29 of the three concrete and steel bridges owned by the Pennsylvania railroad and which are over its big Sunnyside yards in Long Island City, N. Y., a more direct route between the Columbus Circle section of New York City and points on the north and south shores of Long Island is opened to motorists. It is estimated that by using these bridges, which have been in course of construction for three and one-half years, the time necessary for the trip between Fifth avenue and 59th street, New York City, and Long Island will be no more than ten minutes.



SHOWING COMPLETE LAYOUT FOR ELECTRIC LIGHT SYSTEM

generator circuit. This is advisable on account of the fact that it is necessary to know at all times that current is going into the battery. The battery will perform its duty properly if it is properly charged. The ammeter will show whether or not this is being done. It will also show whether there is an open circuit short circuit, reversed polarity or any derangement of the system between generator and battery."

The location of the generator may be varied in accordance with the method of attaching is to the car. The accompanying illustration shows that an outlet box is provided for the generator at a convenient point adjacent to it.

"It is advisable that the generator be driven by what is known as the silent chain, at twice engine speed for high-

between the two passengers. We recommend placing on dash for the reason that body of car may be removed without interfering with the wiring insulation. If the depth or space under the seat is not sufficient for the length of the switch, the same can be built out with a frame of hard wood.

"The main junction box shown in this system should be located, if possible, under the engine hood on the front of the dash. It should be placed in a position to avoid crossing the wires. The outlet boxes supplying the headlights should be placed in wooden blocks, which are fastened into the recess on the inside of the spring forks next to the radiator. Outlet boxes for the sidelights should be placed on the front of the dash at each side, or if the dash is

## GARAGE FOR ELECTRIC TRUCKS

**Big Public Service Corporation Reaches Out in New Direction—Facilities that the Garage Will Afford.**

In that it is to be used exclusively for electric trucks, the garage recently established by the Union Electric Light and Power Co., a public service corporation of

secure a practical balance regardless of the number or arrangement of vehicles in the garage.

Adjacent to the board is a roomy office, opening off the main floor, while on the opposite side is a battery room 21 x 50 feet next to the storeroom and the repair shop.

In the repair shop minor repairs will be made but free use will be given of the extensive motor and machine shops of the

## LENGTHENING LIFE OF DRY CELLS

**Attention and Precautions that Contribute to Their Well Being—Some of the Things to be Avoided.**

On the conditions which surround them, the life of dry batteries is dependent. When the service given by batteries is poor, the trouble is more often due to external conditions than to any other cause.

As dry batteries are very susceptible to dampness, it is important that the container be water tight. This will prevent causes of short circuiting developed from weather conditions, or while the car is being carelessly washed by some attendant of the garage where it is stored.

All battery boxes which are metallic lined should be insulated properly by covering the metal with rubber or heavy canvas to prevent contact between the case and connections.

New cells never should be added to an old set before each has been tested individually by an ammeter. One weak cell will cut down the life of the rest.

When new batteries are put in the car, never any more should be lined in series than originally came with the car. Four to six cells arranged in series will give



ST. LOUIS GARAGE FOR ELECTRIC TRUCKS EXCLUSIVELY

St. Louis, Mo., constitutes a significant departure. This new central station is located in the heart of the business center, there being about 95 per cent. of all the freight terminals and important business houses of that city within a distance of one and a quarter miles. The building fronts 70 feet on the main street, running east and west, and has a depth of 175 feet, and contains several unusual conveniences and safeguards. A concrete trench covered with iron plates extends along both sides and the front, adjacent to the walls. This contains all of the piping and wiring. The concrete is carried about six inches above the floor, this serving the purpose of keeping water from flowing into the trench from the floor, and also of preventing machines from backing into the wall.

All charging circuits are carried from the switchboard to the cast-iron plug boxes in grooves moulded in the concrete trench walls. The grooves are enclosed by asbestos lumber and cement. This separates the various circuits in a fireproof and non-conductive material, while access for repairs may be had any time at small expense.

The switchboard controls the charging current for each vehicle, and the energy is supplied by the Edison three-wire system at a 120-volt pressure on each side of the system. Charging plug circuits are arranged on either side of the system to



INTERIOR VIEW OF ST. LOUIS ELECTRIC TRUCK GARAGE

company when more extensive repairs are necessary.

### Proper Lubricant for Differential Gears.

Cup grease or non-fluid oil should be used in lubricating the differential gears as thin oil works through the housing and may prevent the brakes from doing their work properly. The gear of a new car should go 500 or 600 miles without attention.

satisfactory service on almost any machine; and if four cells give satisfactory service, then any additional number connected in series will last a shorter length of time. This may seem strange to those not versed in electrical matters, but the fact is that with the addition of more cells the voltage is raised, consequently a greater amount of current flows through the coil, and the more current that flows, the shorter the life of the battery.

## DEPARTURES IN DUAL IGNITION

### How They Are Embodied in Connecticut Magnetos—Made for Both Four and Six-Cylinder Motors.

Extending the principle of its well-known unit coil system, the Connecticut Telephone and Electric Co., Meriden, Conn., has brought out several new types of high-tension magnetos, two of which in particular are of the dual type. In all models the transformer coil is made in unit form and mounted within the arch of the magnets. As the coil used is of true unit form, it can be removed and replaced almost as

The particularly noteworthy features of the magneto itself depend in great measure on the fact that it may be dismantled without the use of tools. As the accompanying illustration shows, the distributor arm may be readily withdrawn by raising the locking lever on the distributor cover. Likewise the cup holding the interrupter or circuit-breaker also may be withdrawn from its housing for inspection or adjustment. Another important feature of this device is that it is provided with a slot through which a special file may be inserted for squaring up the contact points. By using the slot as a gauge it is possible to adjust the surfaces accurately with small loss of time. The slot also provides means for regulating the opening between the points by means of

switch is thrown over to the battery side and the starting button on the switch is depressed. This causes the vibrator to act and send a stream of sparks through the plug in the cylinder that happens to be on contact, exactly as the ordinary jump spark is formed under normal conditions. When the motor is started, the button is released, when the system becomes a single spark arrangement, the contact breaker and distributor of the magneto actuating the coil and distributing the secondary current exactly as though the current were derived from the magneto armature. As soon as the motor is turning regularly, the switch is thrown over to the magneto side, when the primary current ceases to be drawn from the battery and is derived solely from the magneto.

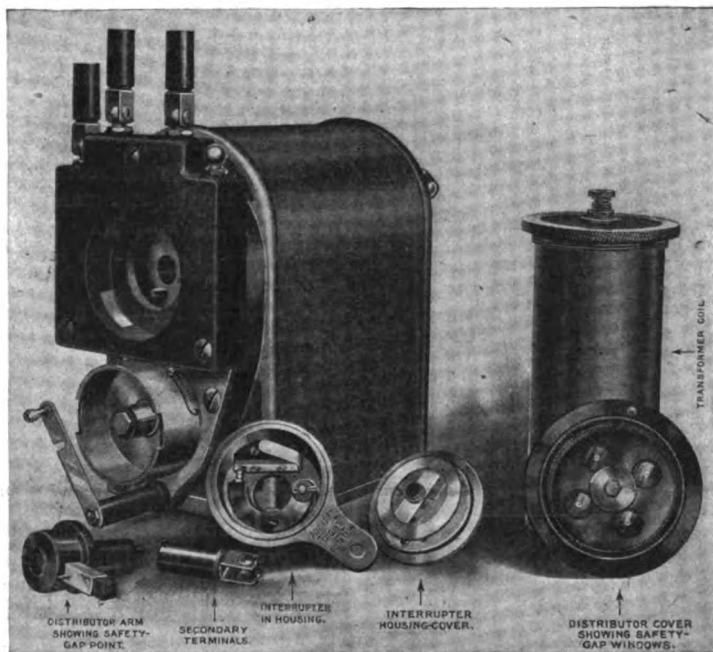
The features of the high-tension independent magnetos remain much the same as last year. The dual systems, both for four and six-cylinder motors, however, are new, and are produced in four and six-cylinder forms with both combined switch and starting vibrator and with the vibrator independent of the switch, the new types thus being practically four in number.

#### Loss of Power Due to Temperature.

Heat is power, and in many cases loss of power may be traced through remembrance of this axiom. Motors are not supposed to run absolutely cold, but are designed to run at the temperature at which they will perform at their greatest efficiency and when outside forces cause the motor to run colder than it is intended to run a loss of power ensues. If an otherwise unaccountable loss of power occurs with the advent of cold weather, it is worth while to block off a part of the radiator with a strip of black oilcloth, the size of the shield being varied till the proper temperature is obtained. Care must be taken that the water does not get too hot, as this may be the cause of more serious trouble. The practice of removing a part of the water from the radiator is not to be commended, as air pockets may form and prevent the water from circulating properly. Another method, which may be used if the radiator shield is objected to, is to loosen the fan belt or to remove it entirely, though this should not be done when an anti-freeze solution containing glycerine is used.

#### Paraffin for Removing Body Stains.

Stains caused by grease oil or dirty hands often are left on the body of an automobile after mud and dust have been washed off in the ordinary manner. These remaining stains may be removed by rubbing with a soft cloth moistened with paraffin, but as the paraffin may create a slight stain of its own, it should be applied to the whole area about once in every three or four months. Its effect is to reduce very slightly the depth of the hue, and so should not be used in the daily washing.



THE CONNECTICUT DUAL MAGNETO DISASSEMBLED

readily as any of the units in the familiar type of dashboard coil. This method of construction, of course, renders possible the much to be desired effect of a clean dash, none of the ignition apparatus except the switch being visible outside the hood, and the new dual system has been designed with a view to extending the principle.

The types in which the feature is embodied are the A-4 and A-6 dual, which are properly so-called, which is to say, that they are arranged to utilize primary current supplied either from the magneto armature or from a set of batteries, with only one set of plugs and plug wires in service. For this arrangement a special starting vibrator is necessary in order to ensure an initial spark when it is desired to start the engine without cranking. The starting vibrator may be had in shape for attachment on the front side of the dish, where it is concealed by the hood, only the kick switch remaining in sight, or it may be carried in the battery box, if desired.

the special gauge which accompanies the magneto.

As the interrupter housing is reversible the timing lever can be connected on either side of the magneto, thus facilitating assemblage under varying conditions. As the interrupter is provided with a single roller bearing against the cam surfaces, the timing is rendered accurate at all speeds, and is unaffected by centrifugal force. It may be added that the cams are readily renewable.

The transformer coil, including both primary and secondary windings and the condenser, is enclosed in a metal tube and is perfectly moisture and heat proof. It has but one external connection and is the same in form whether the system be of the independent or dual type. Indeed, the only apparent difference between the independent and dual forms of magneto is that the latter has two terminals on the interrupter cover instead of one.

In starting with the dual system the



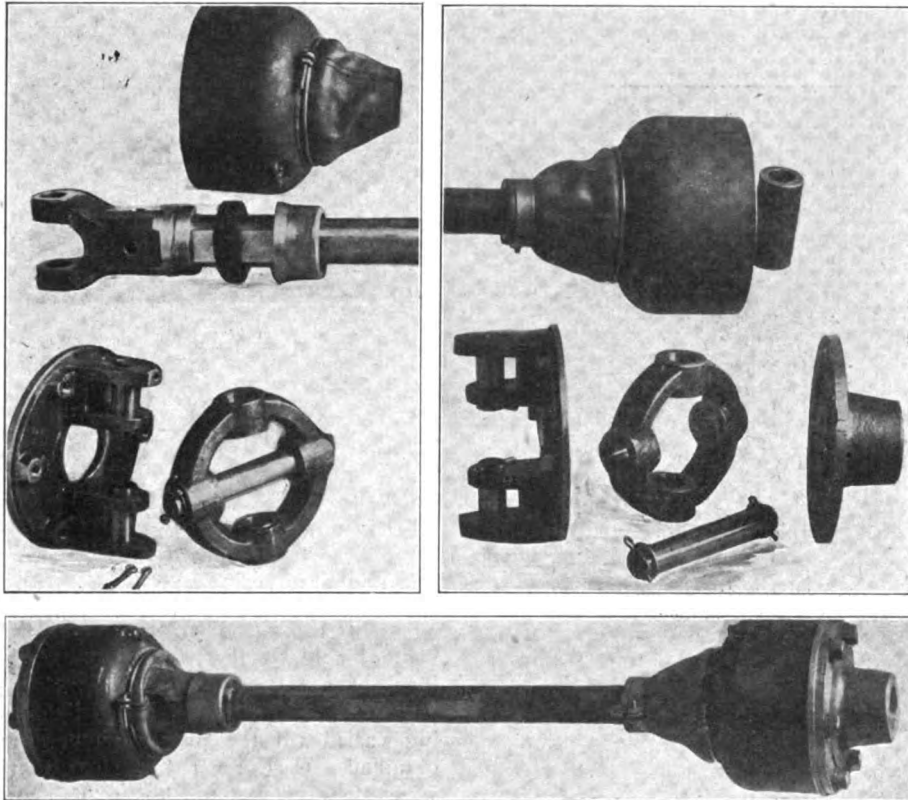
## UNIVERSAL JOINTS FROM HARTFORD

**New Series Produced by Well-Known Makers—Characteristic Features and Advantages Claimed for Them.**

Combining the principles which have been developed in former successful practice, the Hartford Auto Parts Co., Hartford, Conn., is now marketing a new series of universal joints for shaft-driven cars, in which prudent design and careful workmanship are revealed. The general method of construction is the same for all types, but the details

is called, is attached to the second plate. The end of the connecting shaft is held in position in the center of the ring by means of a single pivot pin which passes through bearings in the ring at right angles to those by which the ring is attached to the plate.

Advantageous features which are claimed for this method of assemblage are the use of solid forgings for the principal parts, hardened and ground steel bushings and pins, pressed steel housing for the joint, special rawhide grease-retaining boot and steel slip rings for attaching the boot to the shaft, together with felt dust washers. The housing fits in a groove in the main forging, while the rawhide boot is clamped



SHOWING NEW HARTFORD UNIVERSAL JOINTS COMPLETE AND DISASSEMBLED

vary slightly according to the nature of the work to be performed. The principle employed is that of the familiar gimbal ring, which is used in preference to the double cross employed in certain other types of joint.

The accompanying illustration shows the complete drive which is listed by the Hartford company as Type F-400, the two joints being shown in both assembled and disassembled relations. This indicates not only the general system of construction, but also the method of housing the working parts and protecting them from the inroads of dust and dirt. The basis of the joint is a pair of flanged plates, one of which is adapted for connection with the driving shaft, while the other carries a pair of projecting clevises diametrically opposite to one another and fitted with pivot pins. By means of these pins the bearing ring, as it

is placed at both ends by means of adjustable rings so that it can be removed, replaced or tightened at any time with small expense of time or labor.

Besides the particular type which is here illustrated, attention is called to Type F-400-S, which is an outgrowth of a smaller size which has been made for some time, and which is designed for use upon cars up to 45 horsepower where the single universal and torque tube construction are employed instead of the double joints used in the F-400 pattern. Type F-600 is a double joint arrangement in which provision is made for longitudinal motion in the joint itself, the connection being designed for use with the usual torque bar arrangement. Type J-660, as it is designated, is another new type of driving connection, and is intended for use on trucks of one, two and three tons' capacity.

## TO PREVENT SPRING BREAKAGE

**At Least That Sort Charged to the Spring Makers—Competent Authority Offers Far-Reaching Recommendations.**

"Heretofore minds have been riveted on your motive power, transmissions, clutches and various perplexing things that go with the building of an automobile. I feel, however, that engineers have paid too little attention to the matter of breakage of springs in the center," writes R. D. Woodford, of the Sheldon Axle Co., of Wilkes-Barre, Pa., large manufacturers of springs.

"Note this: If the center attachments are planned strong enough and are perfect fits so one could use a broken spring, there never would be a break. Make springs break outside, and then it is the fault of the maker.

"Here are a few recommendations that I would like to make:

"Have the spring seat or lower bearing of proper length, and make the exact radius of the spring normal.

"If two clips are used let them be of liberal size.

"Plan a top plate to go underneath these clips with a slightly sharper curve than the radius of the spring normal, and have it strong enough in thickness so it will be impossible for a spring to move underneath it at the center.

"I would recommend using between the spring and its lower bearing duck No. 6 or No. 8, saturated with lead and oil. This will preserve the fibre, and when drawn down tight there will be no material to displace. Do not use material under a spring that will displace while in use.

"Use as heavy a spring washer under the nuts as the stem of the clip will compress without injury.

"I advise for a light runabout in which there is used 1 3/4-inch steel, a clip with 1/2-inch shank. For a five-passenger car, where 2-inch steel is used, 9-16-inch shank. For a seven-passenger car, where 2 1/4-inch or 2 1/2-inch steel is used, 5/8-inch shank. And in each case use spring washers as thick as you possibly can crush without injury to the clip shank.

"Many are using a single clip. When these are used care should be taken that the inside of the clip is of the same radius as the spring is normal, so it will absolutely bind the spring tight in the center.

"If these recommendations are observed I think they will eliminate the breakage of springs in the center, which is no fault of the spring maker.

"Some are using springs which are called beaded center. In my mind there is nothing gained by this. If a spring is held down firmly in the center and not allowed to move, it cannot crystallize or break."

## Development of Dustless Roads in Europe

The campaign in Europe against dust and the deterioration of road surfaces, caused primarily by motor-car traffic, was inaugurated by Dr. Guglielminetti, of Monte Carlo, who, during the past ten years, has organized "Leagues Against Dust" in many European countries and with unswerving enthusiasm has worked continually to interest officials and engineers in the necessity for the suppression of dust, says Prof. Arthur H. Blanchard, consulting highway engineer, of Brown University, in a paper dealing with the topic, "Dustless Roads in Europe." The results of Dr. Guglielminetti's successful experiments with superficial tarring in 1902 in the principality of Monaco were published throughout all Europe. In the following year trials were carried out at Champigny by the engineers of the Department of Roads and Bridges of France. In the 1903 report on these trials the French engineers formulated all the basic principles of superficial tarring. Unfortunately the writer has found many instances in Europe and in the United States where these simple axiomatic rules have been ignored resulting in unsatisfactory surfaces and the uneconomical expenditure of many thousands of dollars annually.

After the world powers of Europe had been for several years developing various systems for the allaying of dust and the preservation of the road surface, the French engineers, realizing that an exchange of ideas and a dissemination of knowledge acquired was desirable from the standpoint of economical procedure in the future, through the medium of the French Government, organized the First International Road Congress which resulted in the formation of the Permanent International Association of Road Congresses. The influence of the association upon all European countries, with the possible exception of England, has been far reaching and decidedly beneficial. In many cases the conclusions and recommendations of one congress are made the basis of new construction work carried out before the succeeding congress.

The predominating method employed by the French engineers during the past nine years has been the use of tar as a surface coating mainly on roads of ordinary macadam. Superficial tarring has been accomplished by two general methods: application by hand and by machinery, both cold and hot tar being applied by both methods. Application by machines has been adopted for many years by some of the French engineers. Two types have

been employed, the pressure spraying machine and the gravity flow machine. There are two forms of the second type, namely, those equipped with mechanical brushes and those without; the further distribution of the tar being accomplished by hand brushing in the case of the latter type. By no means is there a consensus of opinion among French engineers relative to the comparative merits of the various machines. Another subject under discussion in France, which is of special interest to the motoring public, is with reference to the relative value of allowing the tar coat to remain without being covered with sand, gravel or stone screenings for a period of time, or to apply such coating immediately after the application of the tar. As the amount of time considered requisite by various engineers varies from a few hours to one or even two days under similar conditions, it would seem desirable that complete service tests should be made to determine if the advantages claimed for the delayed application of the covering are real or imaginary. The maintenance of the macadam surface of that famous Parisian boulevard, the Avenue du Bois de Boulogne, is interesting, due to the fact that twice during the year—once in May and once in October—its surface is coated with tar. During six months of the year its surface resembles that of a perfect sheet asphalt pavement. In February and September, however, the tar begins to disappear from the surface of the traveled ways, and small depressions are naturally formed in many places.

A unique method of surface application, which is only in an experimental state in France, is called by the inventor "Goudronnage par le Feu." The method consists in the application of cold crude tar to the road surface, and the subsequent setting on fire of the tar coat. Comment on the inconvenience caused by burning tar on the public highway is superfluous.

Under the direction of the Technical Commission of the Department of Roads and Bridges of France many experimental sections of various types of surfaces and pavements are being constructed on the national roads. The most interesting and, in the opinion of the writer, the most satisfactory experiment thus far made was the construction of a section of asphalt macadam on the trunk line between Versailles and Paris, in August, 1909. The method consisted of mixing broken stone, sand, asphalt mastic and Trinidad asphalt in a caldron. The mixture was spread to a depth of from  $1\frac{3}{4}$  to 2 inches on a founda-

tion of ordinary macadam and thoroughly compacted. The writer inspected this section in November, 1909, and again in July, 1910. At both times the surface was found to be in perfect condition and was of such a character as to provide a good foothold for horses. In addition to the experimental work of the commission, many of the French engineers have experimented with palliatives and many types of bituminous and cement-concrete pavements.

In Belgium, Italy and Switzerland two types of construction are employed, namely, superficial tarring and a pavement constructed by the Aeberli system. The methods used in connection with superficial tarring are similar to those employed in France; in fact, they are adopted from the French practice.

The Aeberli system of constructing a bituminous pavement has numerous features. First, by means of one machine the broken stone is dried, cleaned and finally passed through a cold bath of crude tar. The tar-coated stone is then stored in piles covered with a blanket of sand 3 to 4 inches in thickness for a period of from three to six weeks, after which it is used in the ordinary way for the construction of a bituminous macadam pavement.

Austria for the past five or six years has been experimenting with superficial tarring and various types of bituminous pavements constructed by the mixing method. The engineers of Austria, in common with those of Northern England and the United States, have to contend with the disintegrating effect of the blows from horses' hoofs shod with shoes provided with calks. Those of the Austrian horse are without doubt the most disastrous in their action on road surfaces, as the shoe is equipped with four calks instead of two, while the shape of the calk is that of a pyramid mounted on a prism. The resulting effect is that on warm days many bituminous surfaces are honey-combed with perforations.

In Germany, in addition to superficial tarring by hand and by various types of German machines and the construction of bituminous pavements of various types by the mixing method, the highway engineers have used very extensively both for city streets and trunk lines subjected to intense motor-car traffic a type of stone block pavement known as *kleinpfaster*. The small stone sets used are so cut that when laid they form circular or parabolic arcs. The stone blocks are laid on a foundation of macadam or concrete with a cushion

coat of sand or gravel, and with joints filled with sand or gravel, and in some cases grouted. Laid in circular arcs, the joints of the pavement are continually "broken" from the standpoint of traffic, resulting in a surface much smoother than ordinary stone block and not as noisy. Hundreds of miles have been constructed throughout the Empire, while its future seems assured as it is enthusiastically supported by the German engineers and the motoring public. A departure from the German practice is found in Hungary, where small square blocks are laid in straight rows forming angles of 45 degrees with the longitudinal axis of the road.

The British engineers have expended large sums of money in the development of many types of bituminous surfaces and pavements adaptable to economical use on trunk lines subjected to heavy and intense traffic, and in some cases as a substitute for asphalt comprimé and wood block on city streets. It is, however, somewhat surprising to find the diversity of opinion which exists among British engineers when it is remembered that, especially in England, bituminous surfaces and pavements have been constructed for many years. However, remarkable progress has been made both from the standpoints of construction and maintenance.

One feature of English practice is materially different from the Continent practice, namely, the more general use of refined tar. This practice is not universal, but has, however, new adherents each year.

In considering the various methods employed in England and Scotland for allaying dust and the preservation of the road surface, the use of water and the numerous palliatives with which the European market is flooded will not be alluded to in detail. Before dismissing the subject of palliatives, however, the recent decisions of the judges appointed by the Roads Improvement Association of England to investigate the dust-laying qualities of calcium chloride should be mentioned. The pith of the judges' comments contained in the reports of September, 1909, and March, 1910, is to the effect "that the results of the tests of calcium chloride applied in granular form by the dry method have shown that it is a very effective dust layer, but the treatment has the ill effects of causing, during the winter months, an abnormal quantity of sticky mud, a decided tendency to licking up, and a disintegrating action upon the macadam surface. Notwithstanding this, we are of the opinion that the process is probably not more injurious to macadamized roads than the excessive watering now demanded by the public effectively to lay the dust."

Within the borders of England can be found a greater variety of methods of using tar in road construction than in any other country in the world. Proceeding from the simple to the complex the first type

which will be considered is superficial tarring. Hundreds of miles have been so treated either by hand method or by various machines of the types used by French engineers but of English design. Two notable diversions may be found from Continental practice by a thorough investigation of English practice. One is the positive conclusion on the part of many engineers that the use of refined tar for a surface coating is economical and possesses many advantages over the use of crude tar. One advantage which is appreciated by motorists is that a road properly coated with refined tar can be opened to traffic within a few hours after treatment. Roads coated with crude tar, however, may have to be closed to traffic for two or three days. In connection with the use of refined tar it is of interest to note that a number of British engineers feel compelled to use refined material from the standpoint of the danger of damages being claimed for the pollution of fish streams by the washings from a road surface treated with crude tar. The second difference is, that the practice of some eminent English highway engineers is to admit the surface dressing of sand or screenings as the same is not considered either necessary or efficacious.

The method of using tarred sand, gravel or chips in both England and Scotland in connection with the construction of ordinary macadam and bituminous pavements is worthy of consideration. The practice of many engineers is to use the fine tarred material as a filler, rather than as a carpet or coating, thus allowing the mosaic surface of the upper layer of macadam to take the wear.

The durability of the various types of tar macadam roads constructed by the British engineers is remarkable, especially when the character of the intense and heavy traffic to which a large percentage of the mileage of this class of road is subjected is taken into consideration. This traffic, consisting of heavy motor vans, tractors and traction engine hauling, in many instances, from one to three trailers is unknown in the United States and on the Continent.

Bituminous pavements have, of course, been constructed for many years previous to the twentieth century, but, at present, interest is centered on those types which have been used during the past ten years. Two methods have been used to a considerable extent, namely, the penetration method and the mixing method. Two modifications of the penetration method usually employed in the United States will be mentioned. Pitchmac is constructed on a foundation of inferior stone, which has been flush coated with bituminous material. On this foundation a layer of 1½-inch stone, varying from 2 to 4½ inches in depth, is rolled in from one to three courses, a coat of bituminous material be-

ing applied to each course, while the surface is completed with a top dressing of chippings. The bituminous mastic used consists of pitch, creosote oil, fine sand and other ingredients. The writer, while in Liverpool, inspected many sections of pitchmac which had been subjected to severe traffic for many years, one having been down nine years, and in every case found the surface in excellent condition. The other modification of the penetration method is the Gladwell system, which consists of first, lightly rolling a thin layer of 2-inch stone on a bed of bituminous mastic; second, painting with refined tar, and third, filling the voids of the surface with mastic, after which the pavement is rolled and at once opened to traffic.

In the mixing method of constructing bituminous pavements two variations from the common American practice should be noted. First, the employment of a great variety of mixers some of which are very satisfactory in the results secured, judged from the standpoints of economics and the quality of the mix. Mixing machines of both the batch and continuous types have secured the attention deserved by British manufacturers. Unfortunately, the limitations of the various machines and, in some cases, operating charges, etc., have not been ascertained so as to permit American engineers to purchase machines without thorough investigation. The other diversion from American practice is in the extensive use of slag, since the first successful experiments were carried out twelve years ago. Although Tarmac has its limitations, as is the case with all classes of pavements, the roads coated with a Tarmac surface, which are found all over England, are generally excellent in character. In connection with the mixing method, it should be noted that asphalt either alone or in combination with tar and other materials has been successfully employed in the construction of many sections of bituminous pavements.

The introduction of Durax as a substitute for wood block, asphalt comprimé and other bituminous pavements and even for ordinary stone block in some cases has occurred during the past few years. Durax is simply the kleinpflaster of Germany with the addition of a bituminous cushion between the foundation and the stone blocks and the joints filled with a bituminous mastic. The city of Birmingham furnishes many examples of Durax pavements which have been under service for a number of years and appear to be giving satisfaction, although subjected to heavy and intense traffic.

Trackways of rectangular stone blocks averaging 12 inches wide, 6 inches thick and of varying lengths have been used for many years on steep hills or where the traffic is exceptionally heavy in some cities of England and Scotland. Trackways both of stone blocks and steel girders

laid in ordinary macadam are now proposed by some foreign engineers as a solution of the problem of economically maintaining macadam roads subjected to swiftly moving motor cars.

In marked contrast to the practice in many sections of the United States, especially in our municipalities, is the well-established custom of giving to one department complete control of the design, construction and maintenance of roads and pavements. The practice in many of our cities of assigning the design and construction to the city engineer and the maintenance to the commissioner of public works would not be considered good practice from the standpoint of economics.

The responsibility for the solution of engineering problems in Europe is placed where it belongs, namely, on the chief engineer. If his first solution is not financially possible or advisable, another is requested, but with practically no interference on the part of laymen with the engineering features of the problem. As a direct result of the above custom three commendable features of foreign practice have become well established in many countries. First, the same thorough preliminary investigation is given to a road problem as is now given to the design of a waterworks system or a sewage disposal plant in the United States. Second, the rapidly developing practice, especially characteristic of the work of the leading municipal and county engineers of England, of constructing that type of surface or pavement which is economically adaptable to local conditions and environments. Third, the development of economical systems of continuous maintenance. One feature, characteristic particularly of the French and English systems of maintenance, is of special interest to the motoring public, namely, the development of economical methods of surfacing large areas with tar or other compounds at the beginning of the summer season. In France this means that the bulk of superficial tarring is done in May and June while in England, due to the rainy season, the work extends into July. In connection with superficial tarring it is interesting to note that the fact has been established, based on the best English and French practice, that it is possible to tar paint macadam roads traversing woods without the subsequent formation of the black mud about which so much has been written.

A commendable feature of French and English practice is the construction of trunk lines with a greater width of the metallized surface than is characteristic of the American highway. This results, when considered in connection with the reduced cross-fall or crown, in a highway which is ideal from the standpoint of modern traffic and more economical in maintenance due to the self-evident distribution of traffic over the surface of the road.

## TITLES THAT ATTRACT DOLLARS

**"Leagues" and "Associations" That Are Not Always What They Seem—"Easy Money" in "Membership Fees."**

While most motorists who consider themselves fairly well informed, rightly believe that the American Automobile Association is the only bona-fide national organization devoted to their interests and properly fulfilling the functions of a membership association holding regular meetings at which members are entitled to vote, the number of organizations, partnerships and corporations the titles of which suggest that they are of the same order is not short of remarkable.

Practically all of them, like the so-called International Automobile League, of Buffalo, which now is under investigation by the New York authorities, are corporations doing a mercantile business and in return for an annual fee of from \$5 to \$25, the shrewd promoters usually offer the bait of cut prices on accessories as a lure for "members." The terms "club," "league," "association" and "society" are so suggestively uncommercial that they assist the allurements, and that they were adopted for the purpose scarcely admits of dispute.

In most instances the "league" or "association" is housed in a small store or a small office, in the latter case carrying little, if any, stock, and simply taking money with one hand and passing it out with the other, less the commission exacted, delivering goods ordered by "members" when they are obtainable, and making substitutions or excuses when they cannot be procured. The "membership fee" is just so much "found money." The "members" have voice or vote in the affairs of few organizations of the sort.

While the promise of automobiles or accessories at less than the market rates is, as stated, the bait that usually is offered, some of the self-styled "national bodies" confine themselves to particular spheres. The tourist, the hotel keeper and the garage men are the special objects of their attention. They furnish the tourist with a lovely little flag or emblem, and the hotel man and the garage man with equally lovely "official signs" in exchange, of course, for a more or less modest sum of American coin. In some parts of the country, in New England, particularly, the number of such signs and of variously appointed "official hotels" and "official garages" is sufficient to make the new motorist wonder whether he does not require the services of an oculist. Poor, indeed, is the hotel or garage that is not the "official" establishment of some organization or other. The so-called Touring Club of America, of New York, and the National Automobile Association and Auto-

mobile Legal Association, both of Boston, Mass., are three strictly business institutions that love the tourist and the hotel keeper and garage man. They each have "official signs" for sale. The T. C. A. also sells maps and road books and touring information, and when hotel keepers desire it and pay for it, the "club" maps out "ideal tours" designed to bring "automobile money" to the hotels' doors. The Automobile Legal Association admires the tourist and the hotel man just as much as does the Touring Club, but as its name suggests, it loves the lawyer more. It comprises a chain of attorneys, any one of whom is at the call of the "member" when he runs afoul of the law. The self-styled National Automobile Association is many things to many men, and to a few men in particular. Its proprietors used to style themselves the Automobile Owners' Supply Co., but apparently realizing the more attractive jingle of such an apparently uncommercial title as National Automobile Association, they adopted it. The nature of their business, however, remains unchanged.

These are but a few of the many similar business institutions trading under uncommercial titles. In New York City alone there are five such "organizations"—the National Association of Automobile Owners, the Mutual Automobile Association, the Inter-State Motoring Association, the Empire Automobile League and the Automobile Co-operative Association of America, in the latter of which the name of August Belmont, the New York banker and multimillionaire, is one of the chief assets; he figures as its chairman, and on the surface at least appears as anxious to get his little "10 per cent off" as the man who has fewer cents than he has dollars. All the other kindred "leagues" and "associations" also point with more or less pride to Belmont's connection with the Co-operative Association of America whenever the nature of their business is questioned and as justifying their existence and methods.

In New York state, outside of the big city, there are several other high-sounding and coin-catching titles employed by shrewd men who, to their own advantage, have answered the "What's in a name?" question and demonstrated that though a rose by any other name may smell as sweet, the same is not always true of a firm or corporation. The International Automobile League, of Buffalo, which now is under fire, is one of this number; the Motor League of America, of Syracuse, is another.

Chicago, like New York, also does not lack men able to appreciate the value of transacting business under uncommercial designations. For in the metropolis of the West there is not only an Automobile Owners' Association, but an Independent Automobile League and a Universal Auto League. Alleged owners' associations, but without "fancy" designations, fairly dot the country. Other than those mentioned they

exist in Philadelphia, in Providence, in Pittsburg, in Cleveland, in Minneapolis, in Los Angeles and few men know in how many other places. The nature of all essentially is the same.

In Boston, in addition to the so-called National Automobile Association, there is the Automobile League of New England, but the over-weening desire to save the automobile owner "from 10 to 20 per cent." knows no climate, and the name employed in promising the "saving" differs only in respect to the imaginations of the men who employ them. Thus while in Birmingham, Ala., they are content with the title Inter-State Automobile Association, in Memphis, Tenn., nothing less than International Automobile Club serves the same purpose. There is an American Automobile Owners' League doing business in Louisville, Ky.; a Southern Economy League in Nashville, Tenn.; a West Coast Automobile League in Los Angeles, and of known "national associations," other than those already specified, there are at least three—the National Automobile Association, of Dayton, Ohio; the National Automobile League, of Logansport, Ind., and the National Association of Automobile Owners, of Harrisburg, Pa., all located in little-big cities and rarely, if ever, heard of outside their confines, except when seeking to obtain goods for "members" at "dealers' prices," mention of which seems to stir the soul of the average man and move him to open his purse and reach out his hand toward whatever appears to offer those prices.

While few of the "leagues" and "associations" have circulated as much printed matter as the so-called International Automobile League, of Buffalo, the value of such an uncommercial title is well illustrated by that tight little corporation. According to one of its bulletins issued during the present month, it has a "membership" of more than 41,000, and as each "member" parted with \$10 solely for the promise of obtaining "dealers' prices," it means that the three individuals who comprise the "league" have divided at least \$410,000 in the less than three years in which they have been banded together. At the investigation of its affairs by the New York authorities, it was brought out that they are trying to collect "back dues" from delinquent "members," and as they undoubtedly collected from some of them, and as they also undoubtedly subtracted a profit from such goods as they were able to deliver to the "members," that the name has netted the trio well over a half-million dollars seems clear. And yet at the investigation it was brought out that about 1,000 "members" had filed complaints that the "league" had failed to deliver goods at "dealers' prices" as agreed, while but 22 could be found who were willing to testify that they ever had received benefits from their "memberships."

## SPEED LAWS MUST BE SPECIFIC

**Court Upsets Indiana State Law—"Closely Built Up Portions" Too Indefinite to be Legal.**

If the decision of Judge Henry H. Vinton, of the Indiana Circuit Court, rendered last week, is recognized as good law in other states of the Union, there is likely to be a general amending of speed laws in several of the commonwealths. For he holds that a statute or law attempting to regulate traffic conditions or the speed of vehicles must be clear and specific in its wording in order to be considered legal.

The validity of the Indiana automobile law was attacked by two attorneys appearing for three motorists charged with violating the law. The fight was carried through the lower courts on several appeals and the case finally came before Judge Vinton, who had been called as a special judge. After hearing the arguments, he declared invalid that portion of the act which limits the speed of motor vehicles in "the business and closely built-up portions of a municipality" to eight miles an hour and in "other portions of a municipality" to fifteen miles an hour. These terms, Judge Vinton holds, are too broad and indefinite. There is nothing in the law to define the terms and it is absolutely impossible to determine which is "the business and closely built-up portion of a municipality" and which is "the other portion." The terms, the court holds, admit of different construction.

In rendering this opinion Judge Vinton referred to decisions made by the Supreme Court as to laws which are not sufficiently specific to admit of clear construction. He instanced a law relating to the use of broad and narrow wagon tires which the Supreme bench had declared invalid because there was nothing in the law defining exactly what are narrow or broad tires.

This decision is of considerable importance especially at this season when several states are preparing to establish so-called "indefinite" speed limits.

### Nutmeggers Want Ferry Tolls Reduced.

Connecticut automobiles, through the Connecticut Automobile Association, are protesting against the ferry rates prevailing throughout their home state, and will petition the next legislature to have a reduction made in the tolls. It is contended that, while the present high schedule of rates was justifiable some time ago when it was necessary for the ferry companies to maintain a force of men to move the cars because of the law prohibiting the operation of motors on the boats, present conditions do not warrant these charges. It is claimed that the charge for an automobile

is from 50 to 100 per cent. greater than that for a two-horse truck in spite of the fact that the automobile takes up less room than the truck.

### Macon Maintains Motor Police Wagon.

It is customary to picture the wrongdoers of the more up-to-date municipalities as in a joyous frame of mind when their misdeeds earn them an opportunity to ride in one of the growing number of motor driven police patrols, but not so with the naughty ones of the little city of Macon, Ga. For them the "hurry-up" wagon offers opportunities of a real automobile ride, but not a free one. Each ride sets the passengers back 75 cents a head, and in real money, when convictions are obtained, the price of the automobile ride being added to the court costs. By this ingenious expedient the city has been able to create a maintenance fund for its police patrol which fund at present has a balance to its credit of \$176.35, although two tires and inner tubes have been purchased as reserve equipment. During the month of November last, the total upkeep expense for the vehicle was \$11.80; \$7.00 for gasoline, \$2.80 for lubricating oil, 50 cents for repairs and \$1.50 for supplies consisting of two sponges and a bottle of polish. During the month 206 police calls and 38 hospital calls were answered, necessitating a total mileage of 567, as against 669 in October.

### License Fees Returned to Portland Owners.

According to a decision of the judiciary committee of the city council of Portland, Ore., owners of vehicles who a year ago paid license fees for the privilege of operating their vehicles under the vehicle license law will receive back the amounts paid into the city treasury. A short time ago the State Supreme Court declared the law invalid and a few owners filed claims against the city for a refund of their fees. The city council had the matter under consideration for several weeks and finally decided that the city would be compelled to make the refund sooner or later, and it was thought best to end the matter by returning the fees illegally obtained.

### Panama-Pacific Race "in the Air."

The Panama-Pacific race in former years run on the roads adjacent to San Francisco under the name of the Portola road race has been postponed and it appears that attempts at the revival of this event may fail of their object, internal dissension having arisen. Though February 22 is considered favorably by the promoters, no specific date has been set, the postponement being of indefinite nature.

The Rhode Island Chauffeur's Club has been incorporated in Providence. The incorporators are: Walter L. Rowell, Harvey Campbell, Charles H. Johnson, Charles W. Harden and Danuel E. Barnes.





















